

INSIDE DOPE

by GEORGE F. TAUBENECK

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Story of the Week

In Detroit there's a new relaxation emporium called "The Office Bar."

Thus, in all truthfulness, the tired businessman can phone home from there and claim that he has been detained at "The Office."

Gags of the Week

Bumped into a man who had worked long and hard for a Republican victory.

"Yeah," he grinned with obvious satisfaction, "they never got it so good."

A vacation usually starts four days before you leave your job, and lasts 16 days after you get back.

If a man takes off his hat in an elevator, he has both good manners and hair.—Kroehler News.

Some foreign countries are considering levying a tax on American tourists—possibly another way of trying to make them feel at home.—Journeymen Barber.

Sports Note

Hailed as the greatest football player in The South, freshman Bill Kriettmeyer of Vanderbilt cut a wide swath last fall. And football fans will be hearing more from and about him henceforth.

His father is a Servel foreman in Evansville, Ind.

Add Publishing Boners

Quoted from a book issued by the L. M. Ericsson Electrical Co. in Sweden, translated into English, and distributed to overseas customers:

"The Board of Directors room is paneled with gilded leather and hung with repulsive oil portraits of departed chairmen."

A college senior dated a young lady from a nearby girls' school a few times. Several weeks passed after their last date. She sent a telegram reading: DEAD, DELAYED, OR DISINTERESTED?

To which the young man promptly wired back: HUNTING, FISHING, OR TRAPPING? — Port Arthur News.

O Death, Where Is Thy . . . ?

A hardy native of Sidney, Australia, having in his time been bitten 12 times by poisonous snakes, run over seven times by bicycles and four times by cars—and nine times wed—finally succumbed to a wasp sting . . . in his 100th year.—U. N. World.

Supercharged Quotes

"They can take every penny we earn, they can pass a capital levy and take every bit of property we own, including the clothes off our backs; they can confiscate the wealth of the United States, every single bit of it, and there is not enough in this great, rich country of ours to satisfy the wants of the rapacious, grasping, greedy, unscrupulous, thieving gangsters and scoundrels who have been bred and nurtured by the income tax and who have seized control of our government."—VIVIEN KELLEMS.

"It will be said that the despot assures his subjects civil tranquility. Granted; but what do they gain, if the wars his ambition brings down upon them, his insatiable avidity, and the vexatious conduct of his ministers press harder on them than their own dissensions would have done? What do they gain, if the

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Automatic Clothes Dryer Highlights Norge '53 Line

CHICAGO—Norge's first automatic clothes dryer—one that will dry by three different methods—highlighted the distributor showing of the company's 1953 appliance lines held here recently.

The new "Time Line" dryer will be made in both gas and electric models, but will not go into production until next spring. It is scheduled for consumer showing in April, according to company officials.

Other highlights of the 1953 line are a 20.6-cu. ft. two-door upright home freezer, and a deluxe model automatic washer featuring an illuminated control panel and safety lid.

Next year's Norge appliance lines will include nine refrigerator models, two upright and three chest type freezers, two automatic and one semi-automatic clothes washers, the clothes dryer, six electric ranges, and nine gas ranges. The models and prices of the 1952 conventional washer line will be carried over into 1953.

The three drying methods provided by the clothes dryer are:

1. The conventional heat dry tumbling method.
2. An air dry tumbling method for delicate fabrics, which draws room air into the dryer to dry at the lowest possible temperature with the heating element turned off.

3. A static drying method which provides heat without tumbling for such items as pillows and knitted garments.

The dryer has the Time Line illumination.

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NARDA Convention Set For Chicago Jan. 11

CHICAGO—Appliance dealers will see themselves as others see them during the 1953 annual convention of the National Appliance & Radio-TV Dealers Association.

The meeting will be held at the Conrad Hilton hotel here Jan. 11-13, coinciding with the start of the second week of the Winter Furniture Market.

According to preliminary plans, one of the speakers will be William Shipley of Main Line Distributors, Cleveland, who will analyze the dealer's faults and those of his salesmen.

NARDA noted that this talk will parallel the strong speech delivered recently by its president, Mort Farr, in which he termed the distributor salesman the weakest link in the chain of appliance and television distribution.

Another expert who will hold a mirror up to the retailer is Miss Evelyn Determan, coordinator of retailing and selling, University of Minnesota. She recently presented an objective study of the dealer at

(Concluded on Page 8, Column 1)

Ashbaugh Reorganizes Staff at Westinghouse

MANSFIELD, Ohio—J. H. Ashbaugh, vice president in charge of the Westinghouse Electric Appliance Div., recently announced the reorganization of his staff to better integrate consumer products sales activities of the division's plant here and in East Springfield, Mass.

W. B. Creech, formerly assistant sales manager at the Mansfield plant, is named manager of marketing and P. Y. Danley, formerly assistant sales manager at the East Springfield

(Concluded on Page 4, Column 5)

ASRE Plans Varied Technical Program At Nov. 30 Meeting

NEW YORK CITY—Most ambitious technical program ever scheduled by the American Society of Refrigerating Engineers will mark the group's 48th annual meeting to be held Nov. 30 through Dec. 3 at the Commodore hotel here.

Four technical sessions, a general session, three conferences, and a symposium on automobile air conditioning have been crowded into a three-day period by George K. Iwashita, program chairman.

The first technical session will be a symposium, too, on commercial and industrial defrosting methods.

Two of the conferences will be devoted to product planning of room air conditioners and installation problems.

(Concluded on Back Page, Column 1)

Frigidaire To Have Year-Round Home Units Next Year

DAYTON—W. F. Switzer, manager of Commercial and Air Conditioning sales for Frigidaire stated that the company is preparing to enter the residential air conditioning market in 1953 with units designed for new or existing homes.

The company now has 3, 5, and 7½-ton capacity units for residential cooling, and next year will also have year-round combination heating and cooling units.

Two new window-type room conditioners were recently introduced to broaden the line, which now offers models of ½, ⅓, ⅔, and 1-hp. capacity. By thus expanding the line, Frigidaire has a window unit to air condition any size room properly, from the smallest to the largest, Switzer said.

Frigidaire engineers began experiments with residential air conditioning units over 10 years ago, and test models were installed in about 100 homes in different sections of the country this past summer.

The company says it anticipates that the residential air conditioning business, especially, will greatly increase in 1953 and will continue to do so in the years to come. It expects room cooler sales will increase at least 50% and the sales of residential central system units will be many times greater than 1952.

Freezer-Food Plan Prospects Get Chance To Try Processing Plant's Food Before Buying

PITTSBURGH—Freezer-Foods, Inc., a frozen foods processing plant and commissary in East Liberty, has come up with an unusual approach to freezer-food plan merchandising.

The 18-month-old firm has opened a retail store in downtown Pittsburgh so the public may purchase its frozen foods conveniently and try them out before entering its freezer-food plan.

At the same time, the new outlet—"Gateway Center Branch"—makes buying of Freezer-Foods' products more convenient for present patrons.

The store offers the firm's frozen foods at two prices; the discount price available to its freezer-food plan subscribers, and the regular price for consumers not yet enrolled in the plan. Foods for plan and non-plan customers are displayed separately.

In addition, fresh meats, poultry, fruits, vegetables, cheeses, condiments, coffee, butter, and eggs are sold.

(Concluded on Page 4, Column 5)

45.3% of Home Buyers Want Summer Cooling, Coleman Poll Shows

WICHITA, Kans.—"An exceptionally high degree of interest in summer cooling" has been found by the Coleman Co., Inc. here, manufacturer of residential heating and cooling equipment, as the result of a survey among buyers of new homes and people planning to build.

"A total of 45.3% of those polled throughout the nation said they wanted summer cooling in their houses," the company declares, explaining that this was included in a questionnaire mailed to individuals and that the results were integrated with 16 other government, university, and private surveys.

This interest, surprisingly, was just about as high in the northern belt of states as in the South, for 43.6% of the people polled in the North wanted summer cooling.

"As a further index of the acceptance of summer cooling, almost as many people wanted summer cooling as wanted more than one bathroom."

Coleman believes that its survey is the first comprehensive sampling ever made in the field of residential comfort cooling.

Congress May End Controls of Wages, Prices April 30

WASHINGTON, D. C.—With Rep. Jeane Wolcott, Michigan Republican, due to take over the chairmanship of the House banking and currency committee when Congress convenes in January, there are good prospects that price and wage controls will not be extended beyond the April 30 deadline, though metals controls may continue past June 30.

Wolcott has expressed his sentiments as being against the extension of price and wage controls. On priorities and allocations of scarce materials, he believes there is justification for continuing them until such time as military needs are met.

Representative Charles Wolverton, New Jersey Republican who is in line for chairmanship of the House Interstate Commerce Committee, has indicated that he will give businessmen a hearing on their complaints of "over regulation" by Federal regulatory agencies. He would also require such agencies to justify their restrictions on business.

(Concluded on Back Page, Column 5)

Bendix To Show Full Appliance Line at Mart

Expects To Have National Distribution Late In '54; May Expand Laundry Line

SOUTH BEND, Ind.—Bendix Home Appliances has confirmed rumors that it plans to market a full line of electric refrigerators, ranges, and home freezers.

The company expects to have full national distribution by the last half of 1954.

Judson S. Sayre, vice president of Avco Mfg. Corp. and general manager of the Bendix division, made the announcement and also hinted the company would expand its automatic home laundry line. He said the new Bendix kitchen appliance line will be shown at the Mid-Winter Furniture Market in Chicago starting Jan. 5.

A sales organization to head up the new line was announced by Parker H. Erickson, director of sales for Bendix.

Gerald L. Hartman will be kitchen appliance sales manager. His position will correspond with that of Harold P. Bull, laundry equipment sales manager.

John K. Russell, Jr. will be the sales manager, range division, and James W. Riley will be sales manager, freezer division.

Hartman has been with Bendix for several months as manager of marketing. He formerly was general sales manager of the Belmont Div. of Raytheon Mfg. Corp. Prior to that he was merchandising manager of Firestone Tire & Rubber Co.

Russell, who has been assistant manager of marketing, joined Bendix after seven years as staff assistant to James J. Nance, then president of Hotpoint, Inc. Before that, he served four years with Dodge Div. of Chrysler Corp.

Riley has been product sales coordinator. He left his own television distributing firm in Peoria, Ill. J. W. Riley & Associates, to join Bendix.

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Journeymen Law for Calif. Wins Contractor Support

LOS ANGELES—The Refrigeration and Air Conditioning Joint Apprenticeship Committee has passed a resolution suggesting a state law that would permit an apprentice who had completed the apprenticeship program and received his state certificate to practice his craft throughout the state of California and thus put an end to the practice of many cities which now require the journeyman to take an examination and pay a fee of from \$2.50 to \$10 to work on a job.

This was made known recently by Henry B. Ely, executive secretary of the Refrigeration and Air Conditioning Contractors Association of Southern California, Inc.

"There is basically no reason for such requirements in the interests

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NARDA To Meet In Chicago Jan. 11-13.. Supreme Court To Review FTC Ruling On Wholesalers' Pricing Practices

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the convention of the International Association of Electrical Leagues.

NARDA said dealers will participate in the program to a greater extent than in the past. One of the highlights will be a symposium on "How I Can Be Sold," giving suggestions to suppliers and their salesmen. Slated to take part in this feature are Joseph Fleischaker of Louisville, George Bates of Memphis, Al Labiche of New Orleans, and Stanley Blount of Houston.

In another talk, Robert Justis of Justis Brothers, Newport, Del., will discuss gimmicks, premiums, gadgets, and door-openers which can be used successfully by the dealer.

Other subjects to be covered by participating retailers are "Developing Prospects," "Does Distributor Servicing Help the Dealer?" and "Sales Planning and Incentives." The latter will be handled by H. B. Price, Jr., NARDA vice president from Norfolk, Va.

Low saturation items will come in for considerable attention during the

meeting. Sales methods for dishwashers will be described by factory experts; dryers and ironers will be discussed at the laundry sales clinic on Tuesday morning, Jan. 13; and freezers will be considered Tuesday afternoon.

Additional subjects to be taken up are bottled gas, finance, television service, UHF, educational television, and washer merchandising. Speakers will include several well-known personalities, including Sales Authority Elmer Wheeler who is to be the Tuesday luncheon speaker.

The convention will get under way with a reception on Sunday evening, Jan. 11, after an all-day meeting of the association's board of directors. A breakfast session starting at 7:30 a.m. will begin each day's activities. The annual banquet is set for Monday night and will feature a nationally-known speaker plus entertainment.

It was pointed out that attendance at the convention is not limited to NARDA members. Other dealers or representatives of any other phase of the industry may attend.

WASHINGTON, D. C.—The Supreme Court has agreed to review a Federal Trade Commission ruling which requires retailers who obtain special prices from wholesalers to prove that such deals do not discriminate against competing retailers.

The ruling was against Automatic Canteen Co. of America, which distributes candy, gum, and nuts for sale through vending machines. The decision was upheld by the Seventh Circuit Court of Appeals.

The company got special prices from its suppliers. According to Automatic Canteen, this was because it bought in large volume and specified cheaper packaging than that usually provided by the suppliers.

But the FTC ruled that the company would be guilty of price discrimination and therefore of unfair competition unless it could prove that its suppliers actually realized economies in selling to Automatic Canteen that would justify lower prices.

In its ruling, the commission cited the "buyer liability" clause of the Clayton Act. This clause, the FTC maintains, "forbids a buyer from knowingly inducing or receiving" prices that discriminate against other buyers.

Automatic Canteen, in its appeal to the Supreme Court, argued that the ruling strikes at something that has "always been considered basic to our competitive economy."

The company maintains that the decision threatens all bargaining between a buyer and a seller. It asserts that the buyer won't be able to do much bargaining if, every time he gets a special price from a seller, he has to prove the seller can justify the price.

Further, Automatic Canteen sees the ruling hampering company purchasing officers in efforts to save money for their firms.

The FTC did not oppose the company's request for a Supreme Court review.

10 Things Mort Farr Would Do If He Were a Salesman

BAKERSFIELD, Calif.—Ten things he'd do if he were a retail salesman today were suggested by Mort Farr, president of the National Appliance & Radio-TV Dealers Association, in an address at a Salesmen's Appreciation Dinner here recently.

They are:

1. Learn more about women. Their language, degree of technical interest, how to get them talking about their interests and preferences, and to what sales stimuli they respond.

2. Get the customer into the selling act. Have her turn on the set, open the door, or iron the handkerchief.

3. Take a constant stream of refresher courses. The service training can offer sales clues. The distributor salesman can impart information. The formal manufacturer, distributor and dealer training efforts should be considered commission sources, not just chores.

4. Look for little merchandising helps, equivalent to the waitress placing your coffee cup with the ear to the right or your pie with the wedge toward you. Offer a pen so it'll be taken, literature so it's read immediately, contracts so they're easy to sign.

5. Sell one item the store's been neglecting—traffic appliances, dryers, dishwashers, gas incinerators, garbage disposers, something that calls for selling. Become the world's best salesman of that product, offering it after closing every sale of anything else, and find ways of developing leads and using customers for finding more prospects.

6. Take pride in ability to evaluate trade-ins. Never allow more for them than they'll bring, including the costs of reconditioning and sales expense. See to it that the boss makes money on trade-ins you handle.

7. Speed up closings. Qualify prospects more fully more rapidly, accelerate his thinking, find out what he's in doubt about and push models right for him.

8. Develop a prospect list and use it constantly for phone surveys, selling efforts, following up old sales. Be proud of a personal following and remember it takes only 1,000 families buying \$200 worth a year to mean \$200,000 worth of business.

9. Learn arithmetic and use it to study real costs and real profits so that you sell quality and service and don't sell against the boss and the business by selling discounts.

10. Be loyal as a principal characteristic. Be loyal to the servicemen of your firm, its name, its brands, its head. Smile when you greet every customer.

General Air Conditioning, Servel Cited In Competition

ALLENBROOK, Pa.—General Air Conditioning Corp., Los Angeles, and Servel, Inc. are two of the leading contenders in the home appliances and housewares division of the Hess Brothers "Versatility in Design" competition, it was announced by Max Hess, Jr., nationally-known retailer.

Entries selected because of their multiple use include General Air Conditioning's sink-range-refrigeration combination and Servel's electric refrigerator.

Purpose of the awards, which are being given for the second year by Hess Brothers, is to encourage production of merchandise that can be used in more than one way.

Sept. Factory Washer Sales 11% Above Aug.

CHICAGO—The American Home Laundry Manufacturers Association reported that factory sales of standard-size household washers in September were up 11.4% over August but down 9.6% compared with September, 1951.

September sales totaled 283,732 units, against 254,537 in August and 313,746 in September of last year.

A total of 71,516 automatic tumbler dryers were sold during the month. This was an increase of 34% over the 53,376 sold in August and a gain of 63.5% compared with September, 1951, when 43,752 units were sold.

Factory ironer sales in September amounted to 22,492 units, an advance of 36.5% over August and 22.9% over September a year ago.

The big new COOLERATOR Leadership Line for '53

A MODEL FOR EVERY CUSTOMER!
A PRICE TAG FOR EVERY POCKET!
BIGGER MARGINS FOR YOU!



NEW! 8 ELECTRIC RANGES!

Space-saver range for a small kitchen? Big low-cost double-oven model? Deluxe push-a-button double-oven model? Not one—but two—infra-red broilers? They're all here—and more besides—for tops in choice for every customer.



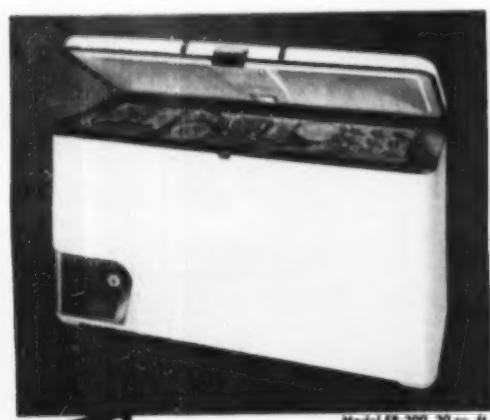
NEW! 10 REFRIGERATORS!

Perfected Automatic Defrost, new roll-out shelves, separate freezer chest, extra shelves in the door, butter savers, adjustable shelf space, left-or-right opening doors—they're all here—every feature your customer is looking for, in sizes from space-saver to "super."



NEW! 3 UPRIGHT FREEZERS!

In 18, 25 and 32 cu. ft. sizes here are the new upright freezers that are zooming in popularity! Every shelf is a fast freezing plate for efficiency and economy. "Cupboard convenience" for fingertip selection.



NEW! 3 CHEST FREEZERS!

In 10, 14 and 20 cu. ft. sizes these are the chest-type freezers that take care of every family from large to small. Convenience is built right in with baskets, space dividers, trays, separate fast freeze compartments.

PLUS! 4 NEW ROOM AIR CONDITIONERS!

Coolerator

ELECTRIC REFRIGERATORS, RANGES,
FREEZERS, & ROOM AIR CONDITIONERS



See Coolerator's Full-Color National Advertising in:

McCall's
Saturday Evening Post
Better Homes and Gardens

Good Housekeeping
Farm Journal
Household Sunset

THE COOLERATOR COMPANY • DULUTH, MINNESOTA

Year-Round Residential Air Conditioning To Be Topic of 2-Day Meeting

STEWART MANOR, L. I., N. Y.—To provide its members with information on year-round residential air conditioning, the Long Island Home Builders Institute will hold a two-day exhibit and discussion at the Stewart Manor Country Club here.

The first session on Monday will be from 3:30 to 10 p.m. and will be for builders and their immediate associates, such as architects and engineers.

The second session, on Nov. 18, will be from 10 a.m. to 10 p.m. It will be open to all persons and firms connected with home construction, including mortgage brokers and lenders, advertising agencies, architects, engineers, heating contractors, and dealers.

Displays have been promised by the following manufacturers: American Radiator and Standard Sanitary Corp.; Bryant Heater Corp.; Carrier Corp.; Airtemp Div. of Chrysler Corp.; General Electric Co.; Lipman Refrigeration Div.; Servel, Inc.; Typhoon Air Conditioning Co.; United States Air Conditioning Co.; Westinghouse Electric Corp.; and York Corp.

Clifton W. Rand, chairman of the institute's meetings committee and president of Home-Crafts, Inc., is chairman of the meeting.

Sun, Shadow Vary Load

Glass, Steel Skyscraper Presents Complicated Heating, Cooling Problem

BUFFALO—Heat from the sun on that vast tower of glass, the new Lever House in New York City, is so intense inside cooling is needed even in winter, G. V. Bond, an engineer, said here.

His firm, Carrier Corp., air conditioned the novel glass and stainless steel skyscraper.

Bond spoke at a joint meeting of the Buffalo Section, American Society of Refrigerating Engineers, and the Buffalo Chapter, American Society of Heating & Ventilating Engineers at the Park Lane.

"Blue actinic glass was used to reduce the solar heat load and to minimize glare for the occupants," he said. "With such an expanse of glass, heat from the sun is so intense that cooling must be supplied even in winter when the outside temperature is 40°."

"However, when the sun passes behind a cloud, offices then require heating within a few minutes. Further complication is caused by shadows of surrounding buildings, which move across the face of Lever House, making heating necessary in some offices, while adjacent rooms require cooling."

"Thus, it is important to have an air conditioning system capable of heating or cooling any office at a moment's notice."

Bond, senior sales engineer of Carrier, said Lever Brothers insisted that the windows be completely sealed, a decision which resulted in a saving of 30% of the cost of windows.

Defense Standardizing Committees Not Limited to Advisory Group Members

WASHINGTON, D. C.—The Refrigeration Equipment Manufacturers Association states it has been informed that the personnel of subcommittees to be set up under the Defense Department's program for standardizing components of industry equipment used by the agency will not be limited to members of the over-all Industry Advisory Committee.

REMA said it was given this and other information about the program by the Office of Standardization of the Munitions Board and Consultants, Inc. The latter concern has been engaged to make a study of the requirements of the military agencies and the products of the industry as they apply to such requirements.

These additional plans concerning the program were outlined to the association:

1. The program will ultimately cover many different types of refrigeration and air conditioning equipment.

2. The first studies to be made by a subcommittee of the Industry Advisory Committee will relate to compressors and condensing units.

3. Heat transfer equipment will be considered at a later date by a subcommittee which will include manufacturers of this type of equipment.

4. The present plan is to replace about one third of the members of the Industry Advisory Committee each year.

REMA noted that manufacturers of heat transfer or other types of industry equipment who feel they should have representation on the present Industry Advisory Committee can express their views by writing or telephoning Robert F. Harvey, Chief, Design Div., Office of Standardization, Defense Supply Management Agency, The Pentagon, Washington 25, D. C. (telephone Liberty 5-6700, Extension 61107).

Greenwich Gas Co. Wins Award for Promoting Gas-Operated Homes

ATLANTIC CITY, N. J.—The Greenwich Gas Co., Greenwich, Conn., was awarded first prize in a nationwide competition among gas utilities for promoting all-year gas home air conditioning.

Competition is sponsored by the American Gas Association. The Greenwich utility was honored for its promotional campaign in connection with 66 all-gas-operated homes being built in the Perryridge Knolls section of Greenwich by Baldwin C. Hvass, builder and architect. The homes feature Servel gas-operated year-round air conditioning and gas-operated major appliances.

The award consists of a plaque and \$500 in cash to John Crowley, sales manager of Greenwich Gas, who directed the promotional work. Presentation was made to gas company officials by W. Paul Jones, president of Servel, at the annual convention of the AGA and the Gas Appliance Manufacturers Association in Atlantic City.

T. E. Smith of Westinghouse Appliance Sales Manager Appointed by Trion, Inc.

HYDE PARK, Mass.—Tolbert Earl Smith, manager of application engineering for air conditioning, Sturtevant Div., Westinghouse Electric Corp., died suddenly at his home in Braintree, Mass., recently.

Well known in the air conditioning sales field, he was graduated from the University of Oklahoma in 1936 with a degree in mechanical engineering.

Soon after graduation, Smith joined the Appliance Div. of Westinghouse as an application engineer. In 1942 he left Westinghouse to work on fortification design for the U. S. Army Engineers, then was called into service with the Navy Seabees.

He served overseas from 1943 to 1945 with the rank of lieutenant. Immediately following, he rejoined Westinghouse at the Sturtevant Div. here.

Smith was a member of the board of directors, Air Conditioning & Refrigerating Machinery Association.

Remodeled Allan's Installs 50 Tons of Air Conditioning

COLUMBIA, S. C.—Allan's, women's specialty shop here, has just completed a \$125,000 remodeling and expansion program.

Four air conditioning units with condensers and water towers are combined with automatic gas heater. These units supply 50 tons of air conditioning to completely satisfy needs of the entire space during warm weather, distribute 1,000,000 B.t.u. of heat to assure cold weather comfort throughout the store.

Heating and Ventilating Show Offers Additional Exhibit Space

NEW YORK CITY—The 11th International Heating and Ventilating Exposition, scheduled for International Amphitheater, Chicago, Jan. 26-30, 1953, has just announced the availability of additional exhibit space.

The demand for space has exceeded previous expositions, it is said, and the forthcoming event already occupies the entire first floor of the Amphitheater and the north wing of the second floor.

The new area is the south wing of the second floor and in the connecting passageway between the north and south wings. A large number of requests for this space have already been received.

Inquiries concerning exhibit space should be directed to the Exposition at Grand Central Palace, New York, N. Y., its permanent headquarters. Charles F. Roth is manager of the Exposition, E. K. Stevens, associate manager.

Car Service, Tea, Meals—And Now Air Conditioning

DALLAS—For some time, customers of Chesterfield Galleries here have been offered a courtesy-car service and afternoon tea or soft drinks and late-evening meals. Now they can enjoy another store feature—air conditioning.

The store, which specializes in 18th Century and French Provincial furnishings, is cooled by two 10-ton Carrier units installed by Carrier-Bock Corp. at a cost of \$7,000.

YOU CAN BE SURE...IF IT'S

Westinghouse

SURE OF OPPORTUNITY AND PROFIT

by qualifying for the Westinghouse Air Conditioning Franchise in your trading area.

SURE OF THE PRODUCT LINE

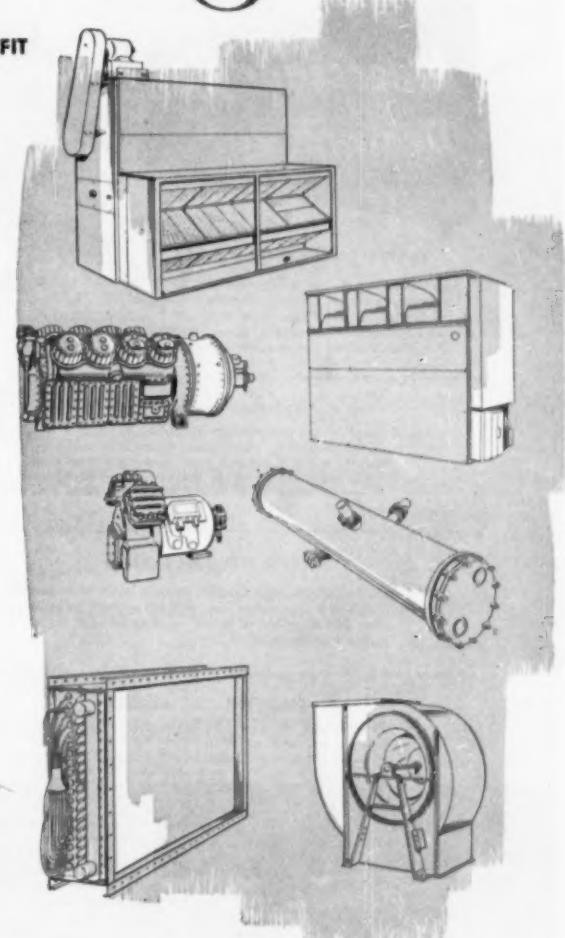
because Westinghouse offers you undivided responsibility. Many manufacturers make air conditioning products, but Westinghouse makes the broadest line of air conditioning, air handling and air cleaning equipment in the industry. Also, all the components are made by Westinghouse, including motors and control. This single source of supply and responsibility is important to you as a distributor.

SURE OF ENGINEERING AND RESEARCH

All the component parts are designed and built to work together in proper coordination. They are products of endless engineering and research. This kind of Westinghouse pioneering developed the original hermetically-sealed air conditioning compressor more than eighteen years ago. Throughout the entire product line, you will find the advantages of these years of experience embodied in proven Westinghouse features.

SURE OF ADVERTISING AND PROMOTION BACKING

Aggressive advertising in national magazines and industrial and commercial trade publications and a complete promotion program support the nation-wide sale of Westinghouse Air Conditioning.



There's opportunity and security—as well as profit—in a Westinghouse Air Conditioning Distributorship or Dealership. We have territories open for aggressive, merchandising-minded organizations. Get in touch with us today.

WESTINGHOUSE ELECTRIC CORPORATION

AIR CONDITIONING DIVISION

Hyde Park, Boston 36, Mass.



"DISPLAY ALL" glass refrigerator doors are used in thousands of modern markets and wherever there is refrigerated display. They are designed to sell merchandise, enhance appearance and give long lasting, trouble free service.

LET US SHOW YOU HOW "DISPLAY ALL" DOORS WILL MEAN SALES AND PROFIT TO YOU... WRITE FOR OUR BROCHURE.

AMERICAN GLASS REFRIGERATOR DOOR CO.
1028 NORTH LA BREA AVENUE • LOS ANGELES 38, CALIFORNIA

Norge Introduces '53 Line--

(Concluded from Page 1, Column 2) minutes control panel which measures a 60-minute drying period with 10 minute groupings. Damp and dry markings are located above the minute indicators.

Instead of the usual perforated tub, the Norge dryer has a smooth nonporous interior which is claimed to dry starched clothes safely and keep clothes from linting and wearing out.



with RUDY CONDENSERS

All sizes and types... standard models... experienced engineers fit unit to your job... modern plant assures low cost, high quality.

WRITE FOR DETAILS

RUDY Manufacturing Co.
Specialists in
Manufacturing Evaporators and Condensers
BOWDIAK, MICHIGAN

The cylinder is 29 in. in diameter while the door opens to a full 180°. When the door is opened, drying action stops automatically, and an interior light goes on.

Offering a five way venting choice, the dryer can be installed anywhere flush with the wall, Norge officials said. Utility outlets are easily accessible. The lint box is located behind the kick plate.

The dryer measures 36 in. high, 31 in. wide, and 26½ in. deep. The electric model will carry a suggested list price of \$229.95. No price has been suggested for the gas model.

FULL DOORS ON FREEZER

In addition to its two outwardly opening full length doors, the new upright freezer features continuous jet freeze shelves, open coil, and thermostatic control. Called the model VFF-213, it is priced at \$649.95.

Norge introduced an 11.2-cu. ft. upright freezer, model VHF-1125, a few months ago. This unit is priced at \$429.95. The interior features of both uprights are the same.

The three chest-type freezers feature cabinet wall construction to eliminate moisture condensation on outside walls, wrap-around aluminum tubing bonded directly to the outside surface of the inner liner, cold air circulation, and "Sentinel lights" at the lower right hand corner to warn when the inside temperatures rises above 15° F.

They are equipped with fiber glass insulation, recessed toe space, a juice rack, and large capacity wire baskets with offset, plastic-wrapped handles. A five-year warranty is given on the hermetic compressor, a one-year guarantee on the cabinet, and a five-year warranty for food spoilage protection.

The 8-cu. ft. freezer, the HF-83, carries a suggested list price of \$349.95; the 15-cu. ft. model, the HF-

153, \$489.95; and the 23-cu. ft. model, HF-233, \$659.95.

The new deluxe model automatic washer has a safety device that automatically stops the spin cycle when the washer lid is lifted. The control panel, illuminated while the machine is in operation, enables it to be read across a room. A red light indicates that hot water is being used, and a yellow light glows when lukewarm water is used.

Located across the back top of the washer, the control panel registers every step of the washing cycle. The cycle normally takes 32½ minutes, but any action can be stopped, repeated, or started at any time.

5-WAY RINSE

For automatic operation, up to 8 or 9 lbs. of dry wash is placed in the tub, soap or detergent is added, and the control knob is pushed in. The tub automatically fills with aerated water, the four double-vane agitator provides wave action washing, the tub drains, and then the clothes are rinsed five ways with two sprays, a surface overflow, a tidal wave agitated overflow, and a deep wave agitation. A six-minute extraction spin completes the process.

No suggested price was given for this washer, the model AW-450. The standard automatic, model AW-425, which doesn't have the safety lid or illuminated panel, is priced at \$279. The semi-automatic model AW-401 with pushbuttons also carries no suggested retail price.

Eight of the nine refrigerator models feature the horizontal freezer—the only exception being the 6.46-cu. ft. model 701 which has a U-type evaporator. But even this model has its counterpart, the model 702, with a horizontal freezer.

New features include cool tone accessory colors used on the "krisper," meat keeper, drip tray, butter conditioner, throat lining, door shelves, freezer door, and control knob on various models.

Adjustable plastic panels on either side of the frozen storage tray to

G-E 14-Ft. Upright Freezer Has Door Shelves



ABOVE: STORAGE WELL at the base of the cabinet is one of the features of G-E's new 14-cu. ft. upright food freezer.

RIGHT: FIRST OF ITS KIND to be produced by General Electric Co. is this 14-cu. ft. upright food freezer (model UA-14). It has three refrigerated aluminum shelves and two aluminum bar-type adjustable shelves in the cabinet, five door shelves with aluminum fronts, and two sliding wire baskets, among other features. Recommended retail price: \$499.95.

Calif. Journeyman Law--

(Concluded from Page 1, Column 5) of health or safety because the contractor is licensed by the state and if the job is not properly installed it is the responsibility of the contractor to see that the work is properly performed," Ely explained.

He said that similar resolutions have been adopted by the Sheet Metal Joint Apprenticeship Committee, the joint apprenticeship committee of the plumbing trades and the Associated General Contractors.

Pakistan Asks for Bids on Air Conditioning Equipment

WASHINGTON, D. C.—The government of Pakistan has asked for bids on supplying and installing air conditioning and humidification plants for the cotton-textile mills at Liaqatabad and Bhaikar, N.W.R.

Bids are invited until Nov. 24. They should be sent direct to the Department of Supply and Development, Frere Rd., Karachi, Pakistan.

Specifications are available on loan from the Commercial Intelligence Div., U. S. Department of Commerce.

RANGES HAVE NEW VENTING SYSTEM

All deluxe model electric ranges in the new line employ a new venting system through the left front surface element, the showing revealed. A new medium priced model, the E-62, featuring divided top cooking, deep well, and four-hour electric timer, was added to the line. It also has the new venting system plus an automatic oven and "white metal" smokeless broiler pan. It carries a suggested list price of \$259.95.

Top of the line model is the E-99B with divided top and indicator lights. It is priced at \$359.95. Indicator lights are also featured on the E-88B, which has left cluster burners and a suggested list of \$339.95.

A deep well cooker, convenience outlet, and clock are provided on the E-60 which is priced at \$239.95. The E-10A doesn't have the clock and is priced at \$199.95. An apartment size four-burner range, the E-2A, is tagged at \$169.95.

Electric ignition is featured on all deluxe gas range models. When the burner control dial is pushed and turned on, the electric ignition energizes a coil to light the gas. When the electric ignition is operating, a signal light on the back panel glows.

Freezer-Food Plan--

(Concluded from Page 1, Column 4) sition. It is a continuous service for as long as desired, in quantities to suit customer needs, with complete freedom of selection. If the customer doesn't like squash, for instance, she's not obliged to take it in a "package."

The 30 ft. by 70-ft. downtown store of Freezer-Foods is attractively decorated in white and burgundy, has meat cases to the left and rear, a display of five freezers (three Harder-Freez uprights on the floor, one International Harvester chest in the window and one on the main floor) on the right side.

On opening day, one salesman was assigned to each freezer to explain the food plan.

Company officials are Saul Bernstein, president; L. F. Harshbarger, executive vice president; M. Schwartz, vice president; M. Copeland, sales manager.

WALL WIRE PRODUCTS COMPANY

A FOREMOST NAME IN THE MANUFACTURE OF DIVERSIFIED WIRE PRODUCTS OF SUPERIOR QUALITY

STANDARD AND LIGHT WEIGHT SHELVES OF ELECTRO-POLISHED SOLID STAINLESS STEEL

REFRIGERATOR SHELVES WITH CHROME PLATE, ZINC PLATE, PRO SEAL, TIN, OR PORCELIZED FINISH

WIRE GRILLES • DISPLAY FIXTURES • GUARDS • BASKETS OF ALL TYPES FOR ALL PURPOSES STEEL STAMPINGS • MISCELLANEOUS FORMED AND WELDED WIRE ASSEMBLIES ARC WELDED ASSEMBLIES

WALL WIRE PRODUCTS CO. PLYMOUTH, MICHIGAN

Meet Today's Demand for

FASTER WORK and BETTER INSTALLATIONS with IMPERIAL TOOLS

HI-DUTY® TUBE CUTTER

The outstanding favorite with refrigeration men everywhere. Has free-wheeling ball-bearing action. Roller type with flare cut-off groove. Retractable reamer. IMPERIAL No. 274-F... for 1½" to 1" O.D. tubing. Other models for tubing up to 2½" O.D.

ROL-AIR® FLARING TOOL

Flares — then automatically burnishes. Embodies a fast-motion-mechanism, which causes flaring cone to burnish flare to a highly polished finish, assuring tighter joints. Flares are rolled in the air. IMPERIAL No. 500-F flares 6 sizes of tubing 3 1/16" to 5 8" O.D. Also many other models.

LEVER-TYPE TUBE BENDERS

Calibrated open side benders. Make smooth well-formed bends to a short radius—any angle up to 180°. IMPERIAL No. 364-F—individual bender required for each size of tubing from 3/16" to 1" O.D.

GEAR-TYPE TUBE BENDERS

Will bend any kind of tubing. This new universal gear-type tube bender makes smooth precision bends even on hard temper copper or heavy steel tubing. Also pipe. Compact, strong, light in weight. Individual benders for ¾" to 1 ½" O.D. tubing. IMPERIAL No. 270-F.

SWEATING TOOL

For making emergency tubing joints without using a fitting. IMPERIAL No. 195-S. Swaging Kit in metal box includes flaring bar and 4 swaging tools for joining ½", ¾", 1", and 1 ½" O.D.

SERVICE VALVE KIT FOR HERMETIC UNITS

Handles an increased number of hermetically sealed units. Valve, wheel handle and gauge are kept completely assembled, ready for use. Includes 9 adapters, 6 wrenches, 5 gaskets, plug, set screw wrench, and instruction chart. Sturdy metal case. IMPERIAL No. 189-F.

See Your Dealer

Ask for Bulletin 80

THE IMPERIAL BRASS MFG. CO., 324 S. Racine Ave., Chicago 7, Illinois
In Canada 204 Lonsdale Avenue, Toronto, Ontario

IMPERIAL

FITTINGS • VALVES • DRAINS • CHARGING LINES
TOOLS for Cutting, Flaring, Bending, Flare-OFF, Twisting

TWIN COMPRESSOR UNITS DESIGNED TO CAPTURE ROOM CONDITIONER MARKET



Two Meter-Miser Compressors provide flexibility never before offered. With exclusive Frigidaire Selective Cooling, only one operates on moderate days, both swing into action on hot days. Gives complete and perfect air conditioning—filters dust and pollen, removes moisture, keeps air moving without drafts, removes stale air, provides just-right cooling—whether outside temperatures are just warm or scorching . . . and does it at lowest possible cost. And for those who want the finest in carefree cooling, thermostatically controlled Automatic Selective Cooling is available.

NEW LOW PRICE LEADER SUPER 33! Competitive . . . with NO Sacrifice in Quality!



Frigidaire meets the challenge of the industry with a new, low, customer-winning price tag . . . meets it without sacrificing a single, solitary quality feature of higher priced models. Not stripped down, not modified, not cheapened, the new $\frac{3}{4}$ hp Super 33 will bring your customers the true luxury of *complete* air conditioning . . . complete cooling and dehumidifying at a price that's hard to beat.

Here's the same Frigidaire all-steel construction and style-winning beauty. Here's the same full-width cooling coil, the same double-safe, double-sure full-width filter, the same whisper-quiet blower-type fan. Here's the same dependable Meter-Miser performance, the same exhaust feature. Here, indeed, is a wide-open door to air conditioning sales and profits never before believed possible.

THE GREATEST ARRAY OF SELF-SELLING FEATURES EVER OFFERED

Compare, and see why Frigidaire offers your customers more, dollar for dollar, than any other unit at any price. Every Frigidaire Room Air Conditioner has every one of these features: (1) Oversize full-width cooling coil for built-in reserve capacity, (2) Double-safe, double-sure, full-width filter screens out dirt, dust, and pollen, (3) Special exhaust feature removes odors, stale air, smoke, (4) Quickly installed without ducts or plumbing, (5) Whisper-quiet blower-type fan, (6) All-steel, style-winning design, (7) Famous Meter-Miser warranted for five years of trouble-free service, (8) Exclusive 4-way directional air circulation cools entire room without unpleasant drafts.

Frigidaire Room Air Conditioners Offer Dealers Tremendous New Profit-Making Opportunities

Demand is mushrooming, and customers are more demanding. This is the picture across the country as the appliance field looks ahead to the 1953 room air conditioning season. More potential customers know more about air conditioning, know better what they want, have a better idea of what they have a right to expect.

One thing they want is air conditioning that's flexible—adaptable to moderate days as well as hottest weather—providing continuous dehumidification and complete filtering, stale air removal, when full cooling power is not required.

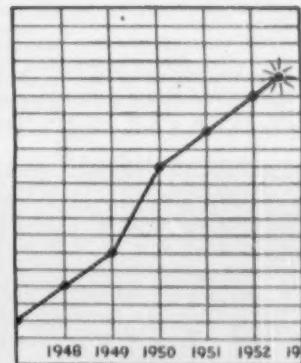
Frigidaire has met this demand head-on with its "Twin" models—each powered by two compressors—twin Meter-Misers teaming up to deliver ideally conditioned air every day at lowest possible cost.

On moderate days only one Meter-Miser functions. Gives important economy, yet provides complete cooling and continuous dehumidification, circulation, ventilation, filtering and exhaust. When outside temperatures soar, the second Meter-Miser goes into action to double cooling ability and maintain perfect conditioning for complete comfort on the hottest, stickiest, most humid days.

Here is the Selective Cooling customers want. Here is another example of how Frigidaire anticipates consumer needs so that Frigidaire dealers sell more products to make more money. Bigger sales, faster turnover, greater profits from the products of advanced engineering—this is why Frigidaire, coast to coast, has become the most valuable franchise in the industry.

BIG BOOM FORECAST IN AIR CONDITIONING

Sell Frigidaire—The Room Air Conditioner That Leads The Way



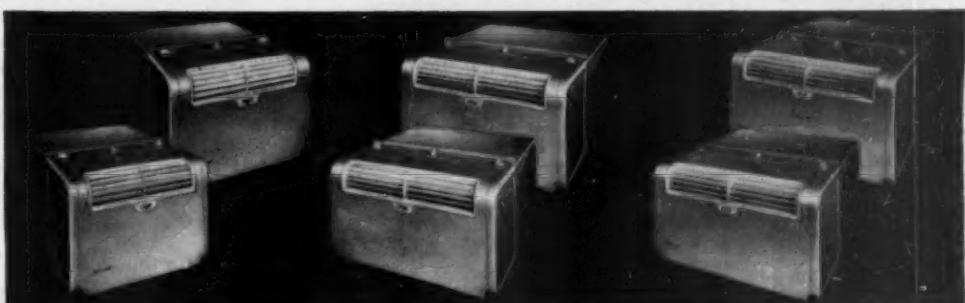
Over the past few years, air conditioning sales have doubled and redoubled as shown in this chart. Predictions are that 1953 will be the most fabulous sales year yet.

Be sure you ride the crest with the units that set the pace for the industry. Frigidaire—pioneer and continued leader in all phases of air conditioning and refrigeration—again leads the way for others to follow in room air conditioning.

Complete Advertising and Promotion Program Geared to Bring Customers into Your Store Ready to Buy

The entire advertising and sales organization of Frigidaire is going all out to back up these outstanding conditioners with a full-scale, sales-winning program. National advertising in big circulation magazines reaching your customers. Co-op advertising. Ad mats. Direct mail. Displays. Sales training schools and material. Color slide films. Hard-hitting, timely special promotions. Here, in one complete package, Frigidaire Dealers will have every possible customer-getting tool to guarantee sales leadership in the biggest air conditioning year in history.

Six Sensational New Models Round Out The Most Complete Line in Frigidaire History



Sell one line—Frigidaire—and you cover all bases. There's a Frigidaire Room Air Conditioner to meet the space requirements of every size room and every customer. With the big sales plus of *Automatic Selective Cooling* available on the two

twin Meter-Miser models, here is really a line to be proud of . . . a line that will sell easier, a line with all models competitively priced, a line that will make you the air conditioning leader in your community.

Frigidaire
Room Air Conditioners

Frigidaire Division of General Motors, Dayton 1, Ohio

How To Increase Gross Profit

Pay Salesmen More, Choose and Train Men for Long Term Service, Use Incentive Compensation Plan

CHICAGO—"Actually, to reduce operating cost, dollar-wise, in the face of ever increasing labor and material cost, is a practical impossibility," declared Ray H. Winther, head of the Ray Winther Co., San Francisco commercial refrigeration distributorship.

Speaking before the sixth annual convention of the National Commercial Refrigerator Sales Association, he added: "The real problem is how to make our gross profit larger than our operating cost and thereby produce a profit."

"If we can make our gross profit increase faster than our cost of doing business we automatically produce this greater profit," he said.

Winther continued:

"To make one office girl or mechanic do the work of two or possibly have two do the work of three, immediately implies poor past management because it shows either a needless over-supply of man power or a drop off of business volume; either of which is equally bad. One approach to this problem has been rather unusual but it has produced results."

Sales Expense Is Biggest Item

"Needless to say, we, like all of you, watch our major and minor expenses and we too have a very careful check on our mechanics' cost, truck cost, etc. But the biggest single item of expense in our business is sales expense and it has given us a great deal of concern."

"This one item was 9.3% for our last fiscal year and this figure represents a considerable increase over our previous year which was abnormal because of the Korean buying splurge and the high business volume. But the 9.3% was actually only 1.03% higher than two years ago, which was a normal and comparable year."

"To some of you this sales expense may still seem too high, but we feel that it is, in part, justifiable because it includes new plowing, or the training cost of two new sales-

men who are not as yet producing their pro-rata share of business volume."

"We believe in long range building of our business, and do not expect these salesmen to return their cost within two years."

"How can we reduce this selling cost and in turn reduce operating cost or show more profit?"

"We have done it by increasing the salaries and incentive compensation to our salesmen."

Why Increase Salesmen

"First of all, by so doing we have been able to retain the best salesmen in the industry. Secondly, we are now justifiably able to make greater demands of our men. And we now have men who are adaptable to training—our type of training, with the result that we have professional salesmen on our staff."

"These men, because of the added incentive compensation, have been able, in spite of difficult competitive conditions, to increase our gross profit by 1.72% while raising our selling cost by only 1.03%, or a net increase of .69% in our net profit."

"How did we do this? First we made the salesmen understand that in order to pay more we had to collect more. Secondly, we reminded our men that there are such figures as 3, 4, 7, 9, and 12, instead of the plain old 5, 10, and 15."

Get Out of the Discount Rut

"These figures represent discounts from established prices when quantity purchasing is involved. Our men had been in the rut of working in even fives with the result that the discounts were 5, 10, and 15% but never 7, 9, or 3."

"This rut had been one that we of management had made for our men because our incentive compensation plan was based on a plan of 1, 2½, or 4%, depending on the category in which the deal fell."

"Therefore, on a deal where a concession of 10% was made, the compensation to our man was 2½%.

added. But on deals of 10-15% concession, our added compensation dropped to 1% with no intermediate steps."

"Salesmen, being human as we all are, took the line of least resistance and gave away all of the 15% allowable because it meant nothing to them. Under our new plan, which now seems obvious, for every cent which the salesman retains, we add 3% of that per cent to the salesman's incentive compensation, with the result that we now have practically all high deals."

"However, the most important innovation of all was when we created an incentive plan for Mrs. Salesman."

Salesmen's Wives Get Into the Act

"Our men work on a monthly quota basis and each month that Papa makes his quota Mrs. Salesman receives, absolutely free of charge, a \$25 merchandise order on I. Magnin Co., one of the leading ladies' apparel stores in the west."

"Does it work? You bet it works!"

It gives us 19, 12, or 15 assistant sales managers, each with a real needle because with the merchandise order goes a report showing the dollar volume of quota sales for the month, earnings for the month, and the same items for the year to date, which gives everyone interested a

(Concluded on next page)

Commercial Refrigeration

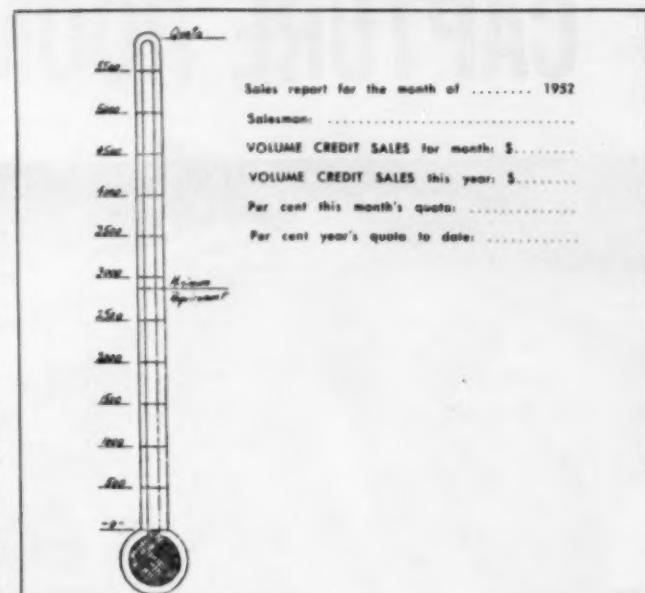


CHART DEVELOPED by Ray Winther Co., San Francisco, lowers selling costs. It is based on monthly reports of quotas for each salesman, and sent to salesmen's wives as part of incentive plan.

NEW PENN

SINGLE POLE REFRIGERATION CONTROL

FEATURING **SNAPFLEX** CONTACT ACTION!

Here's a refrigeration control that gives longer life and better performance than any other single pole control available today. And, one of the big reasons is SNAPFLEX contact action!

Only PENN has SNAPFLEX... an exclusive design in contact structure which provides "roll-wipe-snap" action on closing and opening. Result? No bounce... no closing arc... no welding of contacts!

But that's not all. There's the "in-line" power unit with range spring and bellows directly opposed to assure that once settings are made, they'll stay that way. Direct reading cut-in and cut-out scale... no addition or subtraction, no waiting to check temperature or pressure, just set it and leave it.

Mounting position or vibration does not alter calibration or accuracy of performance. And there's more. You get what you've always wanted... the unmatched features and dependability of the famous PENN Series 270 two-pole switch in SINGLE-POLE construction.

In this complete line, there are low and high pressure models... temperature models... and dual models combining pressure with built-in high pressure safety cut-out. Get the full story on the PENN low-priced single pole control. Ask your wholesaler or write **Penn Controls, Inc., Goshen, Ind.** Export Division: 13 E. 40th Street, New York 16, N.Y., U.S.A. In Canada: Penn Controls Limited, Toronto, Ontario.

Here's a Sales Maker for You... for Your Customers—

The New VIKING CASE
for Dairy Products or Fresh Meats

This new case has all the features your customers want in an open-type, self-service case. Famous Norsair® cooling assures proper temperatures and humidity... is easily regulated for refrigeration of dairy products or meats... at minimum operating cost. The compact, spacious case comes in two or three deck models and in six and ten foot lengths. Extensible. Sparkling porcelain interior and exterior, gleaming mirrors, fluorescent lighting, double glass front and ends provide eye-appealing display.

To sell more, sell Viking. Inquire today about a Viking franchise.

*Pat. No. 2,466,386

Mail Coupon TODAY

Viking Refrigerators, Inc.
7500 Wilson Ave., Kansas City 3, Missouri

Send me more information about Viking's new No. 1004-D & M and No. 1010-D & M Case.
 Tell me about the availability of a Viking franchise in my area.

Name _____
Firm _____
Address _____
City _____ State _____

VIKING REFRIGERATORS, INC.
7500 Wilson Ave., Kansas City 3, Mo.



FOR HEATING, REFRIGERATION, AIR CONDITIONING, PUMPS, AIR COMPRESSORS, ENGINES, GAS RANGES

Raising Profits--

(Concluded from preceding page) true and accurate picture. And it serves as a real yardstick to measure effort expended.

"With the data which we have gathered from these monthly reports, we have developed a chart of our own which definitely improves our selling costs.

"We find that the man who sells only about \$35,000 quota volume per year is a loss to us and to himself because his selling expense to us is 13-15%, whereas the man who can sell \$70,000 or more is first of all, beginning to earn himself a good salary, but more important, he has reduced his selling cost to about 8%, which means more net to the firm.

"We find, therefore, that a good man, well paid, will produce more and better volume; will earn more money for himself and for the company.

'Professional' Salesmen Are the Answer

"We believe that the development of professional, high-class salesmen is the best solution to 'How To Reduce Operating Cost.'

At the end of his talk, Winther was asked just what incentive compensation he paid his salesmen. He replied that beginning salesmen are paid a \$75 per week salary which is increased to \$82.50 at the end of six months. This salary includes the salesman's car allowance.

Then for every sale he is given a quality bonus—which is the .3% of each per cent retained. And, after he reaches his annual quota, he re-

ceives an additional 5% added to his income.

Each of these, salary, quality bonus, and quantity bonus are paid to the men in separate checks. This, Winther said, has a good psychological effect on the men. They feel better getting three separate checks rather than having the entire amount lumped into a single check.

Thorough Interview Plus Testing

Asked how he selects his salesmen, Winther said that first the applicant is interviewed thoroughly by the principals of the firm. If he passes the interview satisfactorily, he is given a professional aptitude test at a cost of \$15 per test charged to the company.

These tests, he averred, are worth every penny spent on them. If the aptitude test shows that the man is not cut out to be a salesman, the company won't hire him, no matter what kind of an impression he made during the interview.

If the applicant passes the test and shows aptitude for salesmanship, the test indicates what his weaknesses are. In the company's training, they work on these weaknesses to eliminate them.

"Before we get through finding out whether he is a good salesman or not, he costs us about \$4,000," Winther said. "But, let me remind you, we are building for the long pull. We expect that man to be with us for a long, long time. It is not until after two or three years that the man starts getting repeat business and building up his volume.

"One trouble with the commercial refrigeration business is that we don't pay our salesmen enough."

NAFC Survey Shows Frozen Food Case Use Growing

MIAMI BEACH—Members of the National Association of Food Chains replying to a questionnaire use an average of five frozen food cases per store, compared with 1½ five years ago, and they intend to install an average of 6½ cases in new stores.

The survey covered 7,000 markets. Results were reported during a discussion of the future of frozen foods at the NAFC convention held here recently.

The study also revealed that frozen foods will account for about 3.6% of the participants' 1952 volume, against 1.5% five years ago. In 1954, the stores expect to boost frozen food sales to around 5.2% of total volume.

Survey results were disclosed by James Cooke, vice president of Penn Fruit Co., Philadelphia. Also participating in the discussion was Alan W. Young of the Safeway Stores' division handling merchandising and distribution of frozen foods.

Among other things, Young listed three things chain stores could do to maintain consumer acceptance of frozen foods: buy top-quality packs, keep frozen foods at the proper temperature, and educate the consumer to store the product at 0° F.

New Oklahoma City Firm

OKLAHOMA CITY—United States Air Conditioning Corp., Delaware, has been granted an Oklahoma charter listing authorized capital stock of \$125,000 and 4,950 shares no par value.

Calif. Hotel Supply Houses Won't Bid Refrigeration Work, Just Equipment

LOS ANGELES—Two California hotel and institutional supply houses have recently given the Refrigeration and Air Conditioning Contractors Association of Southern California, Inc. written assurance that they will no longer bid directly for refrigeration contracting work but will only bid for the equipment, Henry B. Ely, executive secretary of the association, announced recently.

The two houses are the Dohrmann Hotel Supply Co. and the Coast Distributing Co.

A letter from Dohrmann's attorney to the association stated:

"To the end that the company's (Dohrmann) representatives do not in the future undertake any installations which would properly require a refrigeration contractor's license, all units are being instructed not to bid upon or contract for the installation of any refrigeration equipment which is to become an integral part of any building."

"It will be the policy of the company where such installations are called for, to bid only upon the equipment and not upon the installation, leaving the matter of such installation to direct bid and contract by some licensed refrigeration contractor."

This letter was in reply to one from Ely pointing out that in his opinion, bidding for installations of refrigeration equipment is contrary to the state contractors' license law even though the labor is subsequently let to a licensed contractor.

The Dohrmann attorney denied that his company had violated the law and then outlined the policy just quoted.

Ely told association members that he felt sure these companies would want to be advised "of any instances where any of their representatives bid both labor and equipment for refrigeration work."

He asserted that association policy was that refrigeration contracts should be let as a whole and not separated into labor and equipment because only where you have one person responsible for the entire job is the owner properly assured of a workmanlike installation and the necessary service.

"As we understand it," he added, "the official policy of the Associated General Contractors is against letting equipment and labor separately and any instances of this practice occurring should be called to our attention."

A & P Supermarket Plugs Time, Money Saving Features of Self-Service Meat Department

BINGHAMTON, N. Y.—Appeal of its new self-service refrigerated meat department for all members of the family was emphasized by the remodeled A & P supermarket during the formal opening.

The store used full page newspaper advertising to stress time-saving features of the meat department. Copy read:

"Yes, everybody likes Binghamton's new time-saving, self-service meat department. It's a saving for the entire family in time as well as money, no matter who does the shopping. Come in today or any day and take advantage of A & P's new way of meat shopping."

Sketches showed men, women, and children making selections from various sections of the new refrigerated, self-service cases. Copy with each sketch read:

"Men like it because it's so easy to select from the large variety and cuts of pre-packaged meat in the self-service department — steaks, chops, roasts, smoked meats, luncheon meats, and numerous other choice cuts. Each package is clearly marked with the weight, price per pound, and total price."

"Children like it because mothers can tell a child exactly what cut of meat she wants, and the child can find the cut without possibility of error."

Not only is every package clearly marked as to weight, price per pound, and total price, but there are

prominent identifying tags in each self-service case which the youngsters can immediately recognize.

"Women like it because they thoroughly enjoy shopping this easy self-service way—saving time for other important daily tasks, by cutting their food shopping time by many precious minutes each time they shop. And they like the idea of being able to see at a glance just what they are getting, and how much it will cost."

Use of Freeze-Dryer in ACTH Production Cited By California Laboratory

PHILADELPHIA—F. J. Stokes Machine Co. here reported that United Laboratories, Ltd., Pasadena, Calif., is using its vacuum freeze-drying units to process ACTH, which is employed in the treatment of rheumatic fever and various other ailments.

United Laboratories is said to be the first firm west of Chicago to manufacture ACTH.

The Stokes freeze-drying units, "Freon"-refrigerated, are described as compact, self-contained, and simple to operate in the drying of both bulk and large fill items. The company's freeze-drying equipment of standard size and type includes 11 laboratory models and 13 standard models for commercial use.

PARAGON DEFROSTING TIME SWITCHES

300 and 300-M SERIES

from \$10.50 LIST

For Commercial Defrosting—Electric Heat • Hot Gas • Compressor Shut-Down

THE FINEST TIME SWITCH YOU CAN USE

FOR
UNIT COOLERS • WALK-IN BOXES
FROZEN-FOOD DISPLAY CABINETS
LOCKER PLANTS • REACH-IN-CABINETS
• FUR-STORAGE VAULTS



UL



Paragon Time Switches offer you the finest in accurate, durable, precision-built time switches for all types of commercial defrosting applications where defrost period is two hours or less. Easy-to-set pin-type dial for up to 8 periods per day. Heavy hinged case; unbreakable door glass.

See your jobber or write to:

Paragon ELECTRIC COMPANY

1687 TWELFTH STREET • TWO RIVERS, WISCONSIN

AMERICA'S LARGEST EXCLUSIVE MANUFACTURER
OF TIME CONTROLS FOR ALL USES



RANGE		DIFFERENTIAL			
Minimum	Maximum	Min. Top of Range	Min. Bottom of Range	Max. Top of Range	Max. Bottom of Range
-30° F.	+30° F.	4° F.	7° F.	30° F.	45° F.
-10° F.	+55° F.	4° F.	7° F.	30° F.	40° F.
15° F.	55° F.	3° F.	5° F.	25° F.	30° F.
25° F.	90° F.	4° F.	7° F.	45° F.	55° F.
35° F.	80° F.	3° F.	5° F.	25° F.	30° F.
50° F.	90° F.	3° F.	5° F.	25° F.	30° F.



specialty SELLING METHODS

Dealer Keeps Open 5 Nights a Week—It Pays

MILWAUKEE—Henry Colder Co., retail major appliance outlet here, recently decided to remain open until 9 p.m. Monday through Friday after a test showed that evening hours encourage family shopping.

The firm's biggest sellers are products which usually require a joint buying decision—home freezers, refrigerators, ranges, dryers, and washing machines.

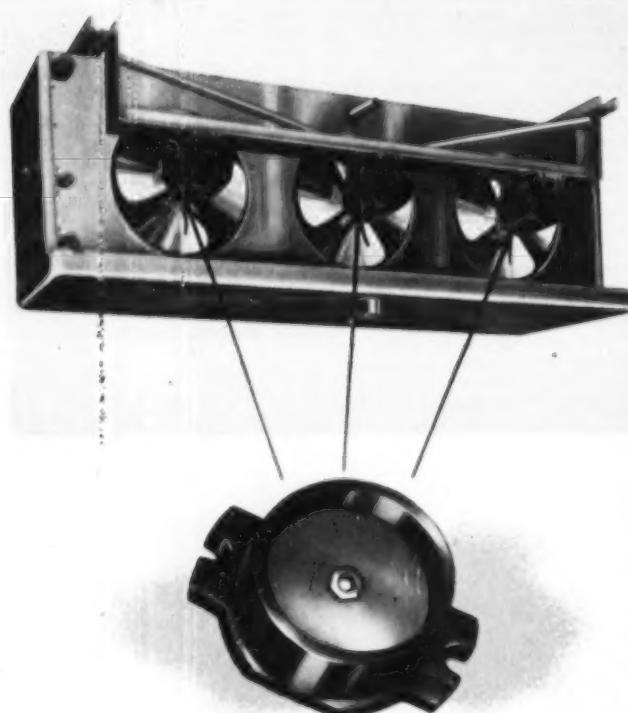
A related reason for adopting the new hours (9 a.m. to 9 p.m. on week days) was the complaint of salesmen that it was often a waste of time to demonstrate appliances to "singles."

Electric Blanket Promotion Sparks Norge Range Sales

CHICAGO—Distributors of Norge appliances are conducting a fall electric and gas range sales drive featuring an electric blanket premium during the peak of the electric blanket season. H. L. (Red) Clary, vice president in charge of sales for the Norge division of the Borg-Warner Corp., has announced.

Clary said the promotion offers customers an electric blanket as a gift with the purchase of certain model Norge gas and electric ranges. Retail cost of the nationally advertised blanket is approximately \$35. The promotion goes through Dec. 15.

KLIXON PROTECTORS Keep Motors Running



IN "RECOLD" DEFROST COILS

"Recold" Water Defrost Coils, manufactured by Refrigeration Engineering Inc., Los Angeles, California, defrost in as little as five minutes with the use of ordinary tap water . . . with no product warm up. This means frozen foods are kept frozen and there is no spoilage.

To keep the fans operating dependably, Refrigeration Engineering Inc. uses motors with Klixon Protectors. The reason . . . they know the value of positive motor protection . . . know that Klixon Protectors always protect the motor from possible motor burnouts which might occur from overloads and overheating.

You, too, can provide your dealers and consumers with motor burnout protection by requesting and specifying that your motor manufacturer supplies you with motors that have Klixon protectors built in. The additional cost is exceptionally low, while the benefits are extremely high.

KLIXON

SPENCER THERMOSTAT
Division of Metals & Controls Corporation
2411 FOREST ST., ATTLEBORO, MASS.

PLAZA APPLIANCE CORP.
HEY KIDS . . . LOOK!!!
DAD CAN GET YOU AN
ELECTRIC TRAIN
FREE
of extra cost with the purchase of any
• RANGE • REFRIGERATOR
• WASHER • FREEZER
• TELEVISION
at the list price at the
PLAZA APPLIANCE CORP.
8237 Plaza Avenue, Plaza Shopping Plaza
Phone PARKING 6-5035

EYECATCHER AD timed for parents who are planning an electric train purchase for Christmas. Plaza Appliance, Niagara Falls, N. Y., draws attention from children and adults.

When Dad Buys Appliance, The Kids Get Toy Train

NIAGARA FALLS, N. Y.—Plaza Appliance Corp. came up with a good promotional gimmick during the fall season when it offered an electric train free with the purchase of any range, washer, refrigerator, freezer, or television set.

The promotion was aimed at children and was timed so that it might be attractive to parents planning an electric train purchase as a Christmas gift.

The event was promoted with a newspaper ad which carried a sketch of a toy train and the caption: "Hey Kids . . . Look! Dad can get you an electric train free of extra cost."

Coolerator Launches Big Ad Campaign To Reach 29,000,000 Families

NEW YORK CITY—This month, The Coolerator Co. is launching what is called "the biggest, most concentrated advertising campaign in its history."

The company, an associate of International Telephone & Telegraph Corp., will sell its 1953 line with repeated four-color and black-and-white insertions in 12 national magazines having a total circulation of more than 20,000,000 families, it was reported. The campaign was prepared by J. M. Mathes, Inc. here.

Heavy sales concentration will occur in all markets that are important to the company, and ads will appear in leading national magazines reaching women, rural families, the small town market, homeowners, the class market, as well as the general public.

Publications to be used include *Saturday Evening Post*, *Life*, *Better Homes & Gardens*, *Good Housekeeping*, *McCall's*, *Farm Journal*, *Household, Sunset, Time, Newsweek*, *U. S. News and World Report*, and *Small Homes Guide*.

The first ad, in four colors, announces the new Coolerator "Leadership Line" for '53 and features all four of the company's major appliances.

Subsequent ads describe in detail the new home freezers, refrigerators, ranges, and room air conditioners. Every ad carries a coupon offering the Coolerator booklet, "How To Be A Part-Time Housewife."

In addition to this campaign, IT&T during the spring and summer will place three full-page ads, also prepared by J. M. Mathes, in *Life* and three in the *Saturday Evening Post* to launch Coolerator's new room air conditioner.

A **TYphoon**
FRANCHISE
IS PROFIT INSURANCE
IN Air Conditioning

Air Conditioning Units
1½-2 tons
Multi-Packaged Systems
Up to 60 tons
Prop.-R-Temp Heat Pumps
2-20 tons
Evaporative Condensers
Packaged Water Chillers

TYphoon AIR CONDITIONING CO., INC.
794 Union Street, Brooklyn 15, N. Y.

INSIDE DOPE
by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1)
very tranquility they enjoy is one of their miseries? Tranquility is found also in dungeons; but is that enough to make them desirable places to live in? The Greeks imprisoned in the cave of the Cyclops lived there very tranquilly, while they were awaiting their turn to be devoured."—JEAN JACQUES ROUSSEAU, *The Social Contract* (1762; Everyman's Library, E. P. Dutton & Co., Inc., 1938).

Short Essay on Competition

We welcome competition as a stimulating and regulating force that provides the incentive to offer better products at better prices and that, in turn, gives the American public the finest values and highest living standards in any part of the world.

Competition is the automatic and dynamic regulator of economic enterprise and the guarantor of efficient public service. In your own field, don't fear competition—welcome it. It is a force that brings to life the true values in any proposition. You can't meet all the public but you have one of the greatest competitive opportunities in the media field."—STORRS J. CASE, advertising manager, Sun Oil Co.

Are We Being Stereotyped?

The notion that mass media destroy individuality and create a mass mind is "not only a bit of nonsense, it is dangerous nonsense," declared Joyce Cary, the British novelist. The exact opposite is true, he insists. Modern newspapers, magazines, books, and motion pictures create a "growing number of people who think and act for themselves."

Continuing, Cary argues: "We are told constantly that people are becoming more and more standardized. That mass education, mass amusements, mass production, ready-made clothes, and a popular press are destroying all individuality—turning civilization into a nice, warmed, sterilized orphan asylum where all the little lost souls wear the same

uniforms, eat the same meals, think the same thoughts, and play the same games."

This belief is now so completely accepted that it underlies half the writing and thinking of the time. You don't see it, but it gives shape to what you do see."

Attitudes of this sort lead to defeatism.

"To teach people to think, if only to make them more useful as soldiers and mechanics, is to open all thought to them."

Compare the press of today with that of 100 or even 50 years ago. You will find a far greater variety of subjects appealing to a greater variety of tastes. You will find instructive articles on matters formerly dealt with only in the special magazines. Perhaps they don't aim at a learned audience, but they help the general reader to get some idea of what the experts are doing in atomic research or medicine or even astronomy. If you want to write a best seller, your best subject nowadays is probably cosmology."

One Way To Save Taxes

Contributory to the growing cost of city management (meaning municipal taxes which hurt) is the rising price of garbage removal.

Salemen of refrigerators, freezers, and "disposals" can help lower municipal taxes by pushing their specialties. Example:

Thirty years ago garbage collectors in Washington, D. C., took away 80,000 tons of awful offal a year. Nowadays, although Washington harbors twice as many citizens, their load has dropped to 50,000 tons.

The "white wings" credit home garbage-grinders and frozen vegetables and juices for the difference.

Where Your Money Goes

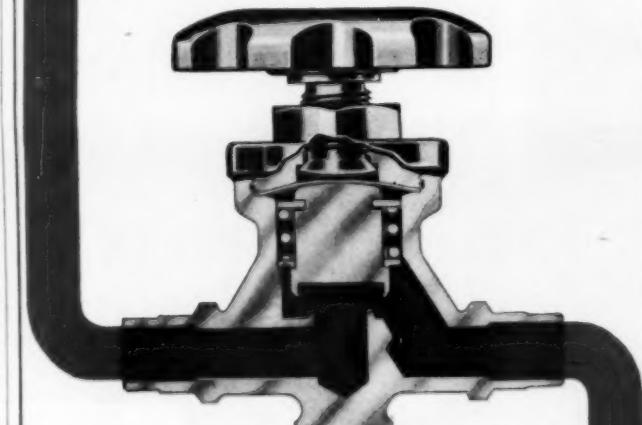
Prominently on the date of a recent General Electric stockholders meeting was a "tax meter" powered by an electric clock mechanism.

Devised by President Ralph Cordiner, this dramatic device ticked off \$113,000 between 11:30 a.m. and 2:30 p.m. That sum represented the amount of money G-E stockholders paid to Washington in taxes during the three hours.

Cordiner reckons that General Electric forks over \$1,000 to the U. S. Government every 80 seconds.

A longer-life line!

The valve that has all the inherent rugged qualities needed for tough, in-line, use. You'll find that the construction—from the precision internal parts to the husky brass body—will serve you best under all conditions.



Metal-to-metal backseat

Operates under normal pressure, in reverse flow

"Suprex" long wearing seat insert

Multiple metal diaphragms

Silver solder without removing internal assembly

Your line is as efficient as the valve you use . . . remember to ask your wholesaler for Superior Line Valves

Superior

valve and fittings co.

Pittsburgh 26, Pa.



Tyler Adds 6 Condensing Units to W. Michigan's Refrigeration Curriculum

KALAMAZOO, Mich.—Receipt of a gift of \$1,200 worth of condensing units for its refrigeration curriculum has been announced by Western Michigan college here.

Six units, ranging from $\frac{1}{2}$ to $\frac{1}{2}$ hp. in size, have been received from Tyler Fixture Corp. through the efforts of Service Manager Arthur Perez. The condensers had formerly been used in the experimental laboratory of the company.

The refrigeration program at Western now consists of two years of study in refrigeration, heating, and air conditioning, with the better students being urged to remain in school another two years to earn their bachelor of science degree in industrial supervision.

Clyde Snyder is the instructor in the curriculum, a part of vocational-industrial and technical education department, headed by Dr. J. W. Giachino.

Refrigeration Students Can Seek Scholarships

KALAMAZOO, Mich.—Western Michigan college has been granted its largest scholarship, the gift of the Durametallic Corp. of Kalamazoo, for students in industrial supervision.

Half of the annual award will be made each semester, going to a student in either his junior or senior year.

To be eligible for this stipend a student must already have completed a two-year technical course at Western, and have decided to continue his education toward a bachelor of science degree in industrial supervision.

Two-year curriculums in which a student may study before seeking a BS degree include refrigeration, heating, and air conditioning, and radio and television, among others.

JUST ASK US!

Turn to "What's New" Page for useful information on new products.

Baby, It's Cold Inside (When the Door Freezes Shut)

A LEAD-SHEATHED heating cable has literally "opened the door" for the General Ice Cream Corp. at its Albany, N. Y. plant. The General Electric cable was installed around the frame of the foot-thick metal doors which separate room-temperature (68° F.) processing rooms from -30° F. hardening chamber. By preventing the formation of ice on the door gasket due to condensation, the installation has eliminated door sticking and made it easier for the ice cream company's employees to enter and leave the low temperature room. Formerly, employees had to spend considerable time in the sub-zero chamber trying to budge the tightly frozen door.

Good Business Ahead, Says Purchasing Agents' Survey

NEW YORK CITY—Good business will prevail well into the first quarter of 1953 though a buyers' market is in the making, a survey of industrial purchasing agents indicates.

The survey, conducted by the business survey committee of the National Association of Purchasing Agents, also shows that orders are increasing while production is tending to level off. Prices are also tending to level out or decline, influenced by lower prices in foreign and future markets.

Made in October, the survey points out that industrial materials inventories are at a new low but are becoming better balanced. Business in October, it said, remained at a high level. The elections were apparently having little effect except to defer some expansion and replacement programs.

Ninety-one per cent of the purchasing agents still practiced a 90-day forward buying limit, though a few more were moving into the 120-day bracket.

Ad. Auriema Inc. To Export Astral to Latin America

NORTHVALE, N. J.—The Astral Industries Inc., recently announced that Ad. Auriema Inc., New York exporter of refrigeration equipment, has been appointed an exclusive exporter of the new Astral portable "Spot" refrigerator throughout Central America (excluding Mexico), South America, and the Caribbean area.

Revco To Show '53 Line At Sales Clinic Nov. 20-21

DEERFIELD, Mich.—Harold J. Overmyer, vice president in charge of sales for Revco, Inc., announces that a special two-day sales clinic will be held at the company offices on Nov. 20 and 21 for all sales personnel and representatives.

The sales clinic will feature a special program dealing with a detailed product story on the new 1953 Chill Chest freezer line, states Overmyer.

In addition, Overmyer announced that J. W. Rietzke, Revco's sales promotion manager, will outline the 1953 merchandising and sales promotion program.

Those who will attend the two-day sales clinic will be: John A. Fiocca and W. T. Fyler, eastern representatives; Paul A. Hutting, southwestern representative; Fred Rhoy, west coast representative; L. M. Baxter, northwest representative; W. H. Laasiter, Jr., southwestern representative; K. O. Schultz and James R. Jenkins, midwest representatives; Herb Koether, Rocky Mountain states representative.

cial session of distributors on Jan. 8 at the Bismarck hotel in Chicago. Final notice of date and place will be announced to distributors early in December.

The Revco plant was closed for a brief period recently to allow for change-over to production of the new freezer line.

J. J. Pocock Inc. Becomes Frigidaire Sales Branch

DAYTON, Ohio—A branch of the Frigidaire Sales Corp. replaced J. J. Pocock Inc. as distributor for all Frigidaire products in the Philadelphia district effective Nov. 1, it was announced by H. F. Lehman, general sales manager for the Frigidaire Div. of General Motors.

H. J. Heller, who has been with J. J. Pocock Inc. since 1923 and is now vice president in charge of sales, became manager of the new branch.

The Philadelphia sales district covers the eastern half of Pennsylvania and southern part of New Jersey. Headquarters of the branch is located in the building in Philadelphia now occupied by the Pocock company.

The change followed the death recently of J. J. Pocock, a pioneer distributor for Frigidaire.

Stusser Electric Distributes Universal Appliance Line

SEATTLE—The Stusser Electric Co. has recently been appointed distributor for Universal-Major Elec appliances and for the Sentinel Radio Corp. in western and central Washington and Alaska. The appointment was followed by a three-day open house for dealers in its territories.

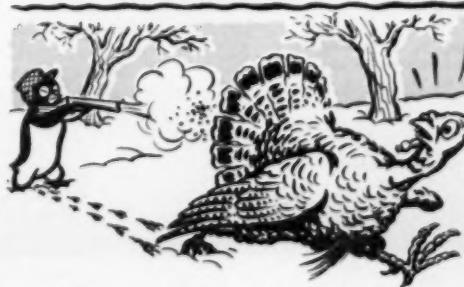
Bringing Home the Bird ... Or how the CCC Plan helps close MORE refrigeration sales



Experience shows that a high percentage of prospects expect and need to buy on time... can't "sign on the dotted line" any other way for lack of ready cash.



Stalking sales is easier when you know your market. And by offering COMMERCIAL CREDIT PLAN you're using financing that millions know and prefer.



Bag more sales with CCC. It's easier to sell when you can offer immediate possession, reasonable rates, 2 to 3 years to pay.



Once he's bagged, you continue to benefit. Enjoy our expert credit and collection facilities and improve your own cash position by carrying less receivables.

COMMERCIAL CREDIT CORPORATION

A subsidiary of Commercial Credit Company, Baltimore... Capital and Surplus over \$125,000,000... offices in principal cities of the United States and Canada.



Refrigeration Students Can Seek Scholarships

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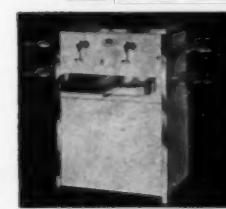
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To be eligible for this stipend a student must already have completed a two-year technical course at Western, and have decided to continue his education toward a bachelor of science degree in industrial supervision.

Two-year curriculums in which a student may study before seeking a BS degree include refrigeration, heating, and air conditioning, and radio and television, among others.

JUST ASK US! Turn to "What's New" Page for useful information on new products.

For Recognized Quality - Extra Gallons Sell Your Condensing Unit



Filtrine Water Coolers

Promote your own condensing unit sales with Filtrine's 20-year-life construction... high capacity... Super Storage... more than 40 years' dependability.

COOLERS FOR MESS HALLS - CAFETERIAS

Conform with Fed. Spec. 00-C-566b

COOLERS FOR X-RAY & PHOTOGRAPHY

PACKAGED CIRCULATING CHILLED WATER SYSTEMS

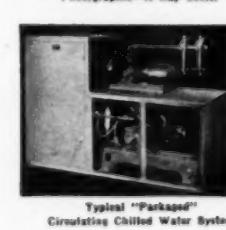
REMOTE COOLERS FOR ALL USES

Sell your condensing unit with Filtrine Stainless Steel or Duo finished cabinets, equipped to suit with top/side shelves, bubbler, glass-filters. Can be Taste-Master equipped to remove chlorine, rust, sediment from water.



Sell your condensing unit with Filtrine models repeatedly named by V.A., Signal Corps, Air Force, etc. for X-ray and photo-labs. Under counter design and floor-mounted models with stainless steel work-table top. Filters (extra) to prevent scratches and pin-holed negatives.

Sell your condensing unit! Systems for drinking or processing water—completely packaged with pump, controls, your condensing unit factory installed. Capacities 5-400 g.p.h.; storage 5-150 gals. Filters and Rectifier-Dechlorinators (extra) to insure taste-free, sparkling water.



Write for catalog and Specification Guide

FILTRINE MANUFACTURING COMPANY - BROOKLYN 5 - N.Y.

"Water Coolers and Filters for 40 Years"



WRITE, WIRE OR PHONE your nearest COMMERCIAL CREDIT office for complete information and facts on how many other Distributors and Dealers are successfully using our PLAN. Phone the COMMERCIAL CREDIT office in your city or write or wire COMMERCIAL CREDIT, 14 Light St., Baltimore 2, Maryland.

HOUSEHOLD REFRIGERATION

All-Plastic Refrigerator Food Cabinet Used In New P. S. Junior Refrigerator



ALL PLASTIC refrigerator food chamber is feature of this P.S. Junior house-hold refrigerator. Below is shown the chamber before mounting in the refrigerator.

NEW YORK CITY—Production of the first all-plastic refrigerator food chamber, for use in the P.S. Inc. "Junior" household electric refrigerator, is claimed by Durable Formed Products, Inc. here.

Made of one piece of thin gauge U. S. Rubber "Royaltite," a rubber-base thermoplastic that can be formed into a vast variety of shapes either rigid or flexible, these chambers will not shatter or crack because of Royaltite's high impact strength. Through deep drawing techniques developed by Durable Formed Products, the 12 by 12 by 12½-in. food chamber is produced from thin gauge material with an inexpensive mold which is said to make for low tooling costs where small quantities are desired. The material is said to be abrasion and acid resistant, odorless, non-corrosive, and able to withstand wide variations of temperature.

The refrigerator manufacturer is said to be considering making the door liner, storage and motor compartments, and exterior of the product in the same manner and of the same material—since it is available in standard colors and marbleized.

Even the Jewelers Are Doing It

SYRACUSE, N. Y.—Wilson's Leading Jewelers here has entered a new type of appliance merchandising in the jewelry store field by inaugurating year-round "live" demonstrations and displays in its big appliance department.

The new method of selling was launched with completion of a major expansion of the basement selling area where the appliance department is located.

More than 3,000 sq. ft. of selling space has been added, where actual demonstrations will be conducted.

Hitchcock of Westinghouse Joins Scranton Distributor

SUNBURY, Pa.—James W. Hitchcock, assistant sales manager, Westinghouse Television-Radio Div., recently left that position to become manager in charge of radio, television, and electrical housewares for Penn Electrical Engineering Co., Scranton, Pa., according to J. F. Walsh, sales manager.

The Scranton firm distributes Westinghouse products throughout a large area of northeastern Pennsylvania.

Altier, Kelly Open Store

SCRANTON, Pa.—A new appliance store has been opened at 304 Spruce St. by Altier & Kelly, formerly located in the Dime Bank building. William Kelly and Joseph Altier are the proprietors.

Write now for full details!

Manitowoc Equipment Works

MANITOWOC, WISCONSIN

Most G-E Major Appliance Production To Be In 'Appliance Park' by End of '53

LOUISVILLE, Ky.—Clarence H. Linder, general manager of General Electric Co.'s Major Appliance Div., said that by this time next year, manufacturing of all of the division's major appliances, except refrigerators, would be under way at the "Appliance Park" plant. He reported that sales of a number of G-E major appliances, including refrigerators, are ahead of last year at the retail level, despite the first quarter lag.

He forecast that industry-wide sales of major appliances at the retail level in 1953 would total about 12.4 million units, up about 16% from the estimated 10.7 million units this year.

The G-E executive said that the opening gun for the 1953 campaign was fired earlier this year when the division's marketing department was reorganized.

Explaining that the process was continuing, he said it has made possible a more effective effort in the areas of product planning, advertising, merchandising, and distribution, and the better coordination of production with retail sales.

Division executives discussing other points in 1953 plans, told the distributors that:

The special sales campaign will cover the full line and will take the form of a "Diamond Jubilee Sweepstakes" in recognition of the 75th anniversary of the company.

The advertising budget for 1953 will exceed \$12 million. Advertising plans feature sponsorship of the Joan Davis TV show and the Bing Crosby

radio show, a newspaper classified advertising schedule, and continuation of cooperative advertising with distributors and retailers.

The intensive sales education activities will include field training clinics.

The planning calendar will inform distributors and retailers of sales promotion activities and advertising and will indicate how these can be capitalized on at the retail level.

Other plans disclosed included:

A permanent showroom, including a "television kitchen," located on the 14th floor of the Merchandise Mart in Chicago, to be opened Jan. 5.

A new price protection plan and free wholesale display plan.

Linder forecast a continuance in 1953 of the buyer's market that developed this year. He added, however, he believes prices during the coming months will be firm.

Both Linder and L. H. Miller, manager of marketing, cautioned the distributors to protect the value of the G-E retail franchise. They said increased emphasis would be placed on the necessity for individual distributors to secure an acceptable percentage of the available business on each of the product lines.

Linder noted that "in scanning the trade press I find there appears to be evidence of a tendency towards factory-owned and controlled distribution."

"I can see no reason in the foreseeable future to depart from our concept of a diversified distribution system," he continued.

This system includes, he reported, nine houses of the General Electric Appliance Co., 22 houses of the General Electric Supply Co., and 32 independent distributors.

Apex Sales In 3rd Quarter

Double '51 Rate; Loss Cut

CLEVELAND—Apex Electrical Mfg. Co. has reported that its sales for the quarter ended Sept. 30 were more than double those of the same period last year and that fourth-quarter sales will probably likewise double those of the last quarter of 1951.

C. G. Frantz, president, declared that earnings of \$25,129 in the third quarter reduced the company's net loss for the first nine months of the year to \$24,485. This compared with a loss of \$226,480 in the first nine months of 1951.

Sales for the quarter totaled \$8,347,400 while those for the nine months reached \$22,115,586.

The steel strike, Frantz said, had Apex assembly lines down for the entire month of July and operating at reduced rates during August and September.

He declared that the company has orders booked for a high rate of delivery into the first period of 1953 and has defense production shipments scheduled at full capacity.

New Norge Dealer Named

SAN DIEGO, Calif.—Appointment of Grand department store here as a Norge and Raytheon dealer was announced by Howard Lochner, appliance and television sales manager of the Coast Electric Co., San Diego electrical supply distributor.

RELY ON REYNOLDS

complete fabricating service for

ALUMINUM

HOME FREEZER

LINER PANELS



Here, at your right, are aluminum home freezer liner panels from Reynolds Aluminum Fabricating Service. Note that the tubing is brazed in position on the panels so that it's an integral part of the unit. And make a note that the component parts are shipped flat for savings to you . . . reach you ready for fast, easy assembly.

These freezer liner panels give you the important advantages of aluminum's economy, rapid heat conduction and superior serviceability. Reynolds embossed aluminum sheets are rustproof, stainproof, light yet strong. Embossing improves rigidity and provides a mar-resistant surface. Reynolds has facilities for alodizing and anodizing to rigid specifications.

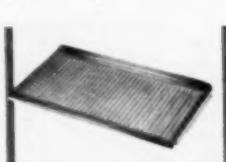
For superior freezer liner panels, as well as for the highest quality refrigerator parts shown below, rely on Reynolds Aluminum Fabricating Service. Reynolds will be glad to work with you on your present needs, or on development work for future application. Contact your nearest Reynolds office listed under "Aluminum" in your classified telephone directory, or write Reynolds Metals Company, Parts Division, 2053 South Ninth Street, Louisville 1, Kentucky.



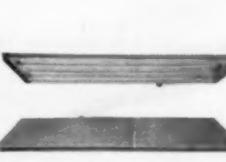
REFRIGERATOR EVAPORATORS
Reynolds embossed and anodized aluminum refrigerator evaporators offer unequalled economy and efficiency in rapid heat conduction.



REFRIGERATOR PANS, TRAYS
Reynolds aluminum crispers and bottle, dairy, egg and utility trays are produced with color-anodized trim to your specifications.



REFRIGERATOR SHELVING
Reynolds one-piece color-anodized aluminum shelving provides rigid construction plus a corrosion-proof and chip-proof finish.



VERTICAL FREEZER SHELVING
Reynolds aluminum vertical home freezer shelves are rigid, durable, attractive. Available in plain, anodized or alodized finishes.



GOOD NEWS: J. Harold Overmyer, vice president in charge of sales, Revco, Inc., Dearfield, Mich., checks the first report with Secretary Rita Mueller, of the company's new "Use-the-User" prospect letter-promotion campaign. The campaign, developed by Overmyer, is aimed at getting more live freezer prospects for Revco's distributors and their dealers.

Warranty Cards Build List for 'Use-the-User' Campaign; Freezer Mfr. Stirs Up Prospects

DEERFIELD, Mich. — J. Harold Overmyer, vice president in charge of sales for Revco, Inc., inaugurated recently a "Use-the-User" campaign that is bringing hundreds of good live prospects every day for Revco "Chill Chest" dealers.

In explaining how the campaign works, Overmyer said the original list of names was obtained from warranty cards which have been sent in direct to the factory by Revco freezer

owners, or by the dealers who make the sales to new owners.

A letter of congratulations from Revco goes out to the new Chill Chest freezer owners, asking them to fill in the names, on a return card, of three friends interested in owning a freezer.

Revco offers a free gift of a set-of-four aluminum, re-usable, utility food containers for their new freezer in return for their cooperation in sup-

plying their friends' names.

This promotion, now into its second month, has resulted in a 30% return of prospect cards, Overmyer states. Each card gives three new prospect names and their addresses. Several thousand letters and return cards have been sent out.

When the cards arrive at Revco, they are separated into territories by state and the prospect cards sent to Revco distributors. A letter of explanation to the distributor points to the importance of following up these live leads by their dealers.

The distributor is further instructed to have his own salesmen keep a close check on the dealer follow-up of these cards to tabulate actual sales results.

Revco's own sales representatives in the field are given a complete report on prospect cards sent into his territory. These Revco men are charged with the responsibility of following up both the distributor and distributor salesmen to see that action has been taken on the prospect cards.

Obere Named Distributor For Chill Chest Freezers

DETROIT—J. M. Obere Inc. here has been appointed by Revco, Inc. as its distributor for Chill Chest and Revco upright freezers in the Detroit area and northern part of Michigan.

The J. M. Obere territory will include the following 28 counties: Cheboygan, Presque Isle, Otsego, Montmorency, Alpena, Crawford, Oscoda, Roscommon, Ogemaw, Iosco, Gladwin, Arenac, Midland, Alcona, Tuscola, Bay, Huron, Saginaw, Sanilac, Shiawassee, Genesee, Lapeer, St. Clair, Livingston, Oakland, Macomb, Washtenaw, and Wayne.



HOME & FARM FREEZERS

U.S. Demand for Frozen Shrimp Lures Booth To Expand Production In Mexico

CHICAGO—Booth Fisheries Corp. is expanding production of shrimp to keep up with the increasing demand, R. P. Fletcher, Jr., president, announced.

Terming shrimp as the favorite American fish dish, Fletcher said that the recent acquisition of General Seafood de Mexico, since changed to Booth Fisheries de Mexico, will help the company maintain a continuous source of supply and get closer to the shrimp beds off the Yucatan peninsula.

The purchase gave the company a freezing plant in Campeche, Mexico, 17 trawlers, and a refrigerated transport vessel.

Shrimping operations off the Yucatan coast are subjected to adverse weather conditions which curtail production along the United States coast in the winter months and are much closer to land, Fletcher explained.

The new subsidiary will enable the Chicago company to round out its supply of frozen shrimp in periods of relative scarcity.

In addition, the company is currently making plans to tap the huge shrimp resources of the Caribbean and the north coast of South America.

In Brownsville, Texas, Booth Fisheries operates a plant employing 135 persons in the production of breaded shrimp. Twice in 12 months Booth has expanded packing facilities and further expansion of this plant is contemplated in the near future.

Growth of all Booth's freezing facilities throughout its entire opera-

tions both north as far as Petit de Grat and as far south as Booth Fisheries de Mexico, has helped make the firm the world's largest shrimp seller.

In a recent 12-month period, Booth moved nearly 15,000,000 lbs. of frozen shrimp by refrigerated trucks.

Frozen Food 'Specials' Boost Market Sales

ELMIRA, N. Y.—The Grand Union market here is steadily increasing its frozen food business by featuring "Freezer Buys of the Week" in its weekly newspaper advertisements.

The featured items also are given special display treatment in the market's frozen food section.

Typical ad copy reads: "Bargains are always in season" at Grand Union. And when you see exceptionally fine values as are listed in this ad, now's the time to fill your freezer.

"Look this ad over carefully and don't miss the chance to stock up with Grand Union's super specials like lamb legs, cut-up chicken, and many other items.

"Yes, buy today and put away. Save to eat another day."

Freezer Firm Incorporated

ELMIRA, N. Y.—Food Freezer Inc. has been incorporated here with capital of \$100,000. Incorporators are Leroy Stein, Mary Rita Tressler, and Dorothy F. Bullock.

Sept. Freezer Sales Soar In Philadelphia Area

PHILADELPHIA—September sales of home freezers were 66% ahead of the same month last year in the five counties of metropolitan Philadelphia, the Electrical Association of Philadelphia reported recently.

The report covers sales in Bucks, Chester, Delaware, Montgomery, and Philadelphia counties.

A total of 1,428 freezers were sold in September as compared with 856 in September, 1951. For the first nine months of the year, 9,611 freezers were sold, 20% more than in 1951.

September sales of water heaters were 46% ahead of last year and clothes dryer sales were up 8%. But television sales were down 12%, ranges 23%, and refrigerators dropped 27%.

For the nine months, clothes dryer sales showed a 6% gain over last year, while water heaters were down 21%, television down 22%, refrigerators down 29%, and ranges down 40%.

The comparative unit sales figures were as follows:

	Sept. 1952	Sept. 1951	9 Mos. '52	9 Mos. '51
Home Freezers	1,428	856	9,611	7,962
Refrigerators	4,937	6,726	57,160	79,784
Ranges	1,332	1,724	10,888	17,929
Clothes Dryers	1,001	970	6,729	6,370
Television	20,728	23,409	109,654	141,200
Water Heaters	898	613	6,305	7,883

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LEVEL-LOAD MILK COOLERS

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No Squat
No Strain

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HAGERSTOWN, MARYLAND

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VOLUME 67, NO. 12, SERIAL NO. 1,235, NOVEMBER 17, 1952

"I have always felt that whatever the Divine Providence permitted to occur I was not too proud to report. The people are not served by pussyfooting, or by that sort of journalism in which nobody will ask who is the editor of a paper or the writer of an article, and nobody will care." —Charles A. Dana.

Air Conditioning May Be The Biggest Yet

THE NEXT several years look mighty good for the household refrigeration business. An estimated 3,000,000 new families will be created during that period. At the same time, it is expected that saturation of the nation's 47,000,000 households (figure projected for 1955) will rise from 87% to 95%.

Add to that some 20,000,000 refrigerators which could be replaced (by bigger, more exciting models) and you have a market which should exceed 5,000,000 units annually until 1958, at least.

In the replacement field, of course, much depends on the ability of dealers to persuade people to keep their old refrigerator—put it in the basement to store Pop's beer, for example. The big job will be that of holding trade-ins to a minimum.

However, the home refrigerator still will be the kingpin of appliances, and by far the biggest seller among refrigerated products, even if trade-ins do clutter up the market somewhat.

And the household refrigerator's companion, the home freezer, is destined to run a good strong second. There are those who believe that, within two or three years, freezers will sell at an annual rate of 30 to 40% of refrigerator volume. Good news indeed!

Yet, huge as they are, sales of household refrigerators and freezers may take a back seat, in the foreseeable future, to air conditioners.

Fantastic? It might seem so if you look at past progress and current figures. Last year the industry sold 252,000 room coolers worth approximately \$1,000,000,000. In 1952, according to best figures obtainable, their sales volume was 370,000 units. Some might consider returns of that sort relatively small potatoes.

But look at the number of manufacturers and sales organizations which suddenly have decided to "get into the act." They smell something cooking, and that something is profits.

You see, a great many people with "disposable income" now feel that air conditioning is the next thing they want at home.

Last summer's hot spell moved air conditioners so fast that dealers were dizzy. It made manufacturers unhappy that they hadn't produced enough to satisfy the demand. Another hot spell early this summer, and we'll be "off to the races" for keeps.

No other refrigerated product has so many types of prospects as does the "package" air conditioner.

Even more important! You can sell several units to each customer. Take a home. Generally the first unit goes into the master bedroom. Next, the children's sleeping rooms. Later it seems like a good idea to cool the recreation room, the living room and kitchen. And so it goes.

Our industry has never seen anything like this situation before. The problem is: How soon will we take advantage of it, and go after it, hammer and tongs?

Naturally, the producers of all-year-round home air conditioning systems won't be idle, either. They'll cool a lot of new homes in the next few years. Next, they'll "convert" owners of existing homes which have warm-air heating systems. Each type of installation will feed demand for the other, and add to the market for both. Whether you are equipped to install complete systems, or are better fitted to sell single room coolers, the business is there for you—eager and willing to be developed.

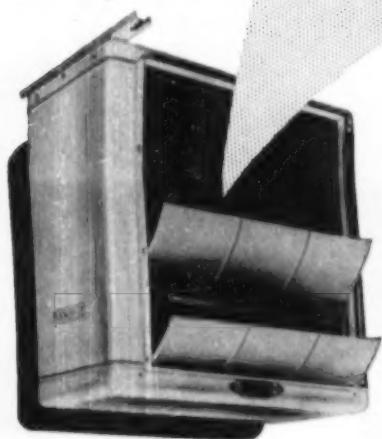
Air conditioning could and should become the biggest thing in our industry's history.

Have You READ 'Peace and Progress' Yet?

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Kay-Tee
has
Guts!

7 SIZES
2,500 to 12,000 BTU



As the result of continual engineering research and mechanical development Kramer gives you—

**A BETTER COIL
for
LESS MONEY**

Take a good look at the Kay-Tee Unit and see the many outstanding features, including:

- New principle of refrigerant distribution.
- Continual tube coil construction (no return bends).
- Die-formed aluminum casing.
- Sweat-proof drain pan.
- Built-in heat exchanger.
- Guaranteed ratings based on accepted standards.
- External feeler bulb loop for easy installation
- And many more features.

Write for Catalog R-230

KRAMER TRENTON CO. • Trenton 5, N.J.



Mfrs.' Representative Finds 'Industrial' Discount One Way To Protect Contractor

LOS ANGELES.—The problem of wholesalers allegedly selling direct to consumers at the wholesale discount and the relation of the wholesaler and the contractor to industrial accounts has received considerable study from the Refrigeration and Air Conditioning Contractors Association of Southern California, Inc. over the past several months.

Recent activities of the group prompted the following letter to Henry B. Ely, executive secretary, from Richard S. Dawson, who heads up a firm of manufacturer's representatives here bearing his name:

"Dear Mr. Ely:
At the recent dinner meeting of your association to which I was invited, it was reported by certain of your members that one of our . . . wholesalers was selling direct to consumers at the contractor price level.

"This was investigated and found to be true. Since we felt that this constituted unfair trade practice, prices were withdrawn from the wholesaler in question.

"We would like to thank you for bringing this matter to our attention. "In the near future, and subject to OPS approval, we shall have a new functional discount for Industrial concerns who maintain their own engineering and installation departments." This price will, of course, be higher than that quoted to contractors for resale. You will recall that this is pretty much the consensus of our members at that meeting as the solution to the problem.

"One of the manufacturers we represent has already instituted such a policy, and it has met with excellent acceptance. Copies of their price sheets are attached, showing very clearly the price preferential given to

the contractor beyond the industrial price. This price structure was OPS approved, so presumably other manufacturers could secure approval on similar functional discounts.

"With best wishes for the continued success of your organization, and pledging our support to sound policies as approved by Fair Trade practices, we are

Yours truly,
RICHARD S. DAWSON
Richard S. Dawson Co."

[This practice of granting "industrial" discounts has been employed by a number of valve manufacturers for some years, the NEWS is informed.]

Comments the California contractors group:

"Certainly this is a step in the right direction. Whether it is the final answer to the problem is another question. It should be given a try and if generally adopted be strictly limited to industrial plants which in fact have their own engineering and installation facilities and not be used as a device to sell industrial plants without such facilities who are in no position to properly engineer the job and who in fact sublet the labor."

EMERSON ELECTRIC BUYS OHIO ELECTRIC TOOL FIRM

ST. LOUIS—Purchase of United States Electrical Tool Co., Cincinnati and Williamsburg, Ohio, has been announced by Emerson Electric Mfg. Co. here.

Emerson Electric on Nov. 1 began operating the Ohio firm as its U. S. Electric Tool Div. Operations at the plant will be expanded.

ROTARY SEAL Replacement Units

AVAILABLE FOR MORE THAN 900 COMPRESSOR MODELS

The original precision-built replacements for Commercial, Semi-Commercial, Air Conditioning and Home Refrigerator Compressors... Proven by outstanding performance for over 20 years! Units are available for all standard makes.

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"Seal with Certainty!"

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CANADIAN AGENT: 2025 ADDINGTON AVENUE
MONTREAL 28, QUEBEC, CANADA

Screwdriver Kit Offered As Christmas Goodwill Gift

CHICAGO—Offered as a Christmas imprint idea to promote goodwill between donor and customer, an inexpensive screwdriver kit in a transparent plastic box has been announced by Vaco Products Co. located here.

Vaco provides for the imprinting of the donor's firm name on the tool bag as well as the driver handle.

Called the X-4 Holiday Kit, the kit consists of a $\frac{3}{16}$ -in. regular X No. 1 Phillips reversible blade, a $\frac{1}{4}$ -in. regular X No. 2 Phillips reversible blade, a heavy duty interchangeable Ambry handle 1 in. by $\frac{3}{8}$ in., and a plastic carrying case with pockets for holding the blades and handle.

The plastic topped transparent box is $4\frac{1}{2}$ by $6\frac{1}{2}$ by $1\frac{1}{2}$ in. and is decorated in holiday motif. The items in the kit are sold with the manufacturer's unconditional guarantee.

All edges on the handle are chamfered to eliminate sharpness while deep flutes offer a vacuum grip. The driver blades are made of forged chrome Vanadium to withstand hard, continuous service.

The kit may be carried in the pocket or hung above the work bench.

Prices, including imprinting, are available on request. Special discounts are offered for quantity purchases.

Paine Opens In Jackson, Miss.

JACKSON, Miss.—Paine Refrigeration Supply Co., Inc. has been granted charter of incorporation, listing capital stock of \$100,000.

Penn Controls Opens 5 District Warehouses

GOSHEN, Ind.—Five new district warehouses have been established by Penn Controls, Inc., according to R. H. Luscombe, general sales manager.

The new warehouses are operating in conjunction with district sales offices in the Boston, New York, Philadelphia, Cleveland, and San Francisco areas.

The Boston warehouse, under the direction of A. W. Barr, district manager, is located at 175 Adams St., Newton, Mass. The New York warehouse, supervised by district manager, George Sanders, is located at 8111 Bergeline Ave., North Bergen, N. J.

The Philadelphia district warehouse, managed by A. L. Rubel, is at 4503 N. Broad St., Philadelphia. The Cleveland warehouse, J. F. Kinney, manager, is at 6207 Superior Ave., Cleveland. The San Francisco district warehouse is located at 920 Grayson St., Berkeley, Calif. District Manager E. T. Layport is in charge of operations.

Nelsen Named Service Manager of Deepfreeze

NORTH CHICAGO, Ill.—Appointment of Loris M. Nelsen as service manager to succeed Sylvester J. Seibert, who was recently named Canadian field sales manager, has been announced by Ben G. Sanderson, general sales manager of Deepfreeze.

Nelsen has been associated with Deepfreeze since 1946 first as domestic service manager and field service engineer, and, for the past five years, as assistant to Seibert.

Prior to that he was for three years a refrigeration engineer with the Kold-Hold Mfg. Co. of Lansing, Mich. During World War II Nelsen was connected with the Army ordnance department as an automotive specialist.

Weir Heads Chase Brass Sales to Wholesalers, Will Specialize In Sale of Brass Mill Products

WATERBURY, Conn.—William J. Weir has been appointed sales manager of wholesale accounts for Chase Brass & Copper Co., Inc. here, a subsidiary of Kennecott Copper Corp., according to Walter E. Evans, manager of mill and warehouse sales for Chase.

Weir, who will specialize in the

IT'S ALL IN THE HEAD the secret of No. 209 Universal Thermostatic Expansion Valve



7 OUTSTANDING FEATURES



Yes, the A-P No. 209 is the ideal, all-purpose thermostatic expansion valve. One easy-to-dial adjustment on the valve head provides complete, precise pressure-limit control. A valve you can use at any pressure limit . . . in any position . . . in any ambient temperature . . . on any application. Adjusts for any superheat, too.

Think of the time-, labor- and money-saving advantages of this unique valve. Use it on original equipment or for replacement service. You can't beat its practical adaptability and economy on any job.

Examine its unique construction . . . rugged forged brass body, liquid-charged power element, stainless steel needle, seat and springs. You'll see substantial reasons for the outstanding reputation that A-P has built for quality merchandise.

A-P refrigeration valves last for years of economical, trouble-free service.

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AIR CONDITIONING (Year-Round Residential)



TYPICAL INSTALLATION OF a Brunner "Comfortaire" heat pump year-round air conditioning system is shown here. Stevens of Miami, Florida builder, will have Comfortaire heat pumps in 14 new custom-built homes in the Riviera section of Coral Gables, Fla.

'Comfortaire' Heat Pumps To Heat & Cool 14 New Homes In Coral Gables, Fla.

NEWARK, N. J.—Mike Parcaro, president of American Coils Co. here, manufacturer of the Brunner "Comfortaire" heat pump, reports that its agent, the W. W. McMillan Co. of Jacksonville, Fla., has concluded arrangements with Stevens of Miami, Florida builder, to place Brunner Comfortaire heat pumps in 14 new "luxury type" custom-built homes in the Riviera section of Coral Gables.

Stevens of Miami is headed by Herbert L. Stevens, who has won recognition for a number of innovations in home builder practice.

One special angle to the installation in the Stevens home is a "zoning control" system, whereby three areas are cooled or heated separately, or all at one time, from the Brunner heat pump. Purpose of this arrangement is to provide a maximum of efficiency at a minimum of operating cost.

By means of a switching control, and zoning dampers in the duct system, the homeowner may condition the "living area" only in the day time, the bedrooms only at night, and the entire house for special occasions as desired.

The heat used in the Stevens homes in the Riviera section of Coral Gables is of the water-to-air type. Water is supplied by 10-ft. to 20-ft. wells, and the discharge water is returned to the ground at a different level. These wells also supply

water for lawn sprinkler service and other uses.

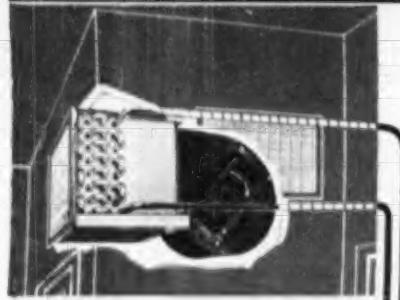
Both heating and cooling are provided by the single compact heat pump unit, and the changeover from cooling to heating is automatic. Thermostats are employed to maintain the desired year-round temperature, and no manual operation is required once the unit is connected.

Stevens has won acclaim not only for his innovations in home construction, but also for his progressive methods in merchandising the particular features that he stresses. For example, to get across the "quality story," prospective buyers are invited to visit the job site and watch the construction from day-to-day where the experienced workmen answer any questions regarding the use of pre-cast windows, pre-cast joints, and other features.

Lowry Electric Co., which is making the installation of the Brunner Comfortaire units in the Stevens home, has used some large newspaper advertising space to point out that the Brunner units were selected by Stevens.

The advertisement plays up the fact that this unit "takes the place of both an ordinary air conditioner and heating system" and also that it entails "No Extra Cost for Heating" and "No Extra Cost for Watering Lawns" and that where such a unit is installed there are "No Fuel Tanks,

WHY INSTALL AND INSULATE EXPENSIVE DUCT WORK TO AIR CONDITION A NEW BUILDING? WHY WRECK AN OLD BUILDING TO INSTALL AND INSULATE EXPENSIVE DUCT WORK?



TRUE AIR CONDITIONING IS
NOW POSSIBLE WITH

SPOTAIRE

Series H.R.C.
"INSTALLED WITH
ORDINARY PIPING"

SAVES MATERIAL
SAVES LABOR
SAVES TIME
SAVES 30% PLUS

MAKES POSSIBLE ECONOMICAL AIR CONDITIONING OF EXISTING BUILDINGS AS WELL AS NEW

Thousands of existing structures, motels, hotels, hospitals, offices, residences, and apartments are ready for air conditioning. This business is yours for the taking.

INSTALL UNITS LIKE YOU
WOULD A RADIATOR

IN ATTICS, UPPER AREA OF CLOSETS,
AND OTHER OUT OF WAY, OUT OF SIGHT PLACES

CHILLED
WATER
UNIT

Write for literature

ACCOMPLISHED BY USING
LARGE FAN TURNING AT LOW SPEED

A.d.h EXCLUSIVE FEATURE

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FACTORY: 3301 MERRISON ST., LOS ANGELES 60, CALIF.
Address: Mail Box 2220 TERMINAL Annex, LOS ANGELES 54, CALIF.

Tulsa Builder Plans To Cool New Homes with 3 and 5-Ton Units

Year-Round Systems Will Get Big Play At Builder Conclave

TULSA, Okla.—John Zink Burner Co. is developing plans to produce a combination air conditioning and heating unit, it was revealed.

Seth Conrad, Tulsa developer and home builder, told members of the Tulsa Home Builders Association that Zink is expected to complete his research into the units within a few weeks.

Conrad, who is expected to air condition the majority of the homes in his 96-house subdivision at 31st and Yale Ave., said he has been working with Zink in an effort to perfect the combination unit.

The builder said Zink is working on a 5-ton air conditioner that will be coupled with a 150,000 B.t.u. heater for houses with 1,500 or more square feet of floor space. He also is working on a 3-ton unit with a 100,000 to 110,000 B.t.u. heater for houses in the 1,200-sq. ft. class.

The Tulsa firm is also expected to produce a 3-ton unit that can be installed in existing houses, Conrad said.

Conrad said the "water tower" of the cooling units will be installed in the garage, eliminating an outside tower. The actual cooling-heating units will be located in a closet inside the house, he added.

Conrad said he plans to air condition as many homes as the people want in Conway Park. Construction in the addition is expected to start next spring.

CHICAGO—Residential air conditioning is slated for major attention at the annual convention-exposition of the National Association of Home Builders in Chicago Jan. 18-22, the association announced.

An entire general session will be devoted to demonstrations, study, and discussion of this subject which NAHB said has "stirred up enormous interest among builders."

Air conditioning equipment manufacturers, represented by the Air Conditioning & Refrigerating Machinery Association, will participate in the session.

In addition, there will be at least 11 special air conditioning displays in the exposition where builders can inspect the latest equipment and acquire further information.

Altogether, the event will include an array of up-to-the-minute presentations on technical developments in home building and an exposition of building materials and equipment.

Convention - Exposition Director Paul S. Van Auken has announced that nearly 250 manufacturers have taken exhibit space, and the number of exhibit spaces increased from 250 to nearly 400. The displays will occupy space on four floors of the Conrad Hilton hotel.

JUST ASK US!

Turn to "What's New" Page for useful information on new products.



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DETROIT-*Con*



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Controls CORPORATION

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REPRESENTATIVES IN PRINCIPAL CITIES • Canadian Representatives in Montreal, Toronto, Winnipeg — RAILWAY & ENGINEERING SPECIALISTS, LTD.



Listing Calls on Blackboard Speeds Operation for Commercial Firm; Direct Mail, Stickers on Equipment Bring In Business

ATLANTIC CITY, N. J.—A blackboard in the shop speeds up service operations for Commercial Refrigeration Co. here, according to Owner Don Martin.

As calls for service come in, the names of the callers are written on the blackboard. When repairmen return from jobs, they take the next name listed, crossing it off as they leave. Thus, a minimum of time is consumed between calls.

If an emergency call is received, one serviceman is relieved of his shop work to handle it. If no mechanic is available at the moment, an asterisk is placed next to the caller's name and the first man who returns must make this call next regardless of where it is listed on the board.

After a job has been finished, servicemen fill out a job sheet in triplicate. One copy is left with the customer and the other two turned into the office.

Martin processes the sheet and

then mails one of the copies to the customer, keeping the third copy for the files. Customers seldom object when a bill arrives, since it is a duplicate of the one left by the serviceman.

Although the summer vacation season is the mainstay of this community, the company is kept busy the year-round, Martin said. He attributes this to the fact that the firm maintains constant contact with local realtors and business firms.

BUSINESSES KEEP CHANGING OWNERSHIP

"Year after year," he explained, "businesses in this resort area are changing hands. Everytime there is a business change, we have a new prospect for sales or service."

When the firm learns of a change in ownership or of a new business which can use air conditioning or refrigeration equipment, the name is put on a direct-mail list. About four

mailings are made periodically before the name is deleted from the list. During this time, Martin makes personal visits or telephone calls to the prospect.

Another business producer is the practice of putting plenty of company stickers on equipment serviced. The stickers are placed not only on equipment actually repaired by the firm but on all other air conditioning and refrigeration equipment in the customer's establishment.

Whenever a new owner takes over a business and he has trouble with his refrigeration or air conditioning, he usually checks the equipment for a service company's sticker, Martin pointed out. Leaving stickers on every piece of operating equipment has introduced Commercial Refrigeration to many new owners, he declared.

Offering 24-hour service, promoted in all newspaper and phone-book advertising, has also proved a good

4-1790 COMMERCIAL REFRIGERATION CO.

3025 ATLANTIC AVE.
ATLANTIC CITY, N. J.

Job

TERMS: C.O.D.		DATE:
Mechanic:	Labor:	hours
Make & Model	Methyl —	Freon
Refrigerates		
H. P.	Make	Belts:
Other:		
Belt Size:		
Work Done:		
Authorized Signature:		TOTAL

THIS FORM is filled out in triplicate by the serviceman. One copy stays with the customer; the second copy is mailed by the office to the customer as his bill, and the third goes into the office files. Few complaints are received on the billing because the customer already has seen the figure at the time the work was done.



SERVICE CALLS are listed on this blackboard as they come in. Servicemen take the calls from the blackboard in the order in which they appear. Emergency orders are marked with an asterisk and the next serviceman in must take these calls regardless of order. If available, shop men usually take care of the emergency calls as soon as they come in.

volume builder. Customers generally want immediate service when refrigeration or air conditioning equipment breaks down and when they know that a particular company can be depended on for such service, they usually keep that firm in mind, Martin stated.

Commercial refrigeration is a sales agency for Typhoon air conditioning equipment and other products.

Baltimore Aircoil Names Two New Representatives

BALTIMORE — Baltimore Aircoil Co., Inc., manufacturer of evaporative condensers and cooling towers, announces the appointment of Guy W. Gentry of Oklahoma City to cover the state of Oklahoma and western Arkansas and Harry G. Mouat of Birmingham, Ala., to cover Alabama and northwest Florida.

REMCO DRIERS

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The lowest-cost, most efficient DRIER on the market.



These are the ideal low-cost standard duty driers—for use by original equipment manufacturers, field installation or service replacement. With new MOLDED Remcal drying element or granular silica gel. Copper bodies 1-5/8" diam. with spun ends. In 1/3 thru 1 H. P. Send for descriptive folder.

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...AND THERE ARE TWO MORE POINTS
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OIL GIVES MAXIMUM LUBRICATION AND
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AUTOMATIC CONTROLS for

REFRIGERATION AIR CONDITIONING DOMESTIC HEATING
AVIATION TRANSPORTATION HOME APPLIANCES INDUSTRIAL USES

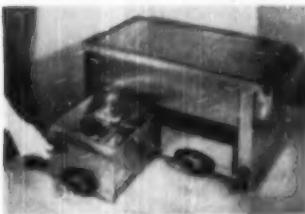
Shipping Arms and Industry - AMERICAN- STANDARD - AMERICAN BLOWER - CUSHION SEATS - DETROIT CONTROLS - KERANEE BOILERS - KOBES HEATER - TYPOUNION CORP.

SEE PAGE 22

What's New

When requesting further information on new products, please use "Information Center."

Counter Kitchen Contains Griddle, Toaster, Broiler



KEY NO. B-1130

SOUTH HACKENBACK, N. J. A "counter kitchen" that condenses a griddle, toaster, and broiler in one stainless steel unit, is being manufactured by the Aeroil Products Co., Inc. here.

The "G.T.B. Counter Kitchen" takes only 29 in. of backbar space with a depth of 18 in. It operates on any type of gas and features a forest of tiny ceramic reflectors that diffuse an even heat blanket over all cooking surfaces.

The manufacturer claims that the unit will cook 360 slices of toast, 450 hamburgers, 120 grilled cheese sandwiches, or plenty of bacon and ham in one hour.

Inside chassis of the Counter Kitchen is built of heavy gauge steel welded at all joints. Outside shell as

well as the two compartments and grease drain cup are manufactured of 22-gauge stainless steel with a high polished finish.

Toaster and broiler compartments are interchangeable and extra compartments can be purchased at additional cost. The toaster compartment has four toast baskets made of heavy steel wire with a coating of nickel alloy. Racks are made to receive four slices of toast at one time and all four slices are turned over with a single twist of the control knob.

The broiler compartment can be lifted out for convenient cleaning. The broiler rack, made of heat resisting nickel-plated steel can also be removed.

The heat production section of the unit includes the scientifically arranged burners and ceramics. The ceramics completely cover the upper section of the burners. The gas flame heats the tiny ceramic projections to about 1,900° F. preventing direct flame contact.

There are four ceramic sections to each burner, eight sections in the front corners of the unit.

The burners can be quickly adjusted to the efficient maximum or minimum range depending on type of gas and pressure available.

CHICAGO—A small portable electric washer for baby clothes and diapers that can also be used as a sterilizer has been introduced by the Chicago Electric Mfg. Co. here.

Called the "Handyhot" electric washer, the unit has a 3-lb. capacity. It features automatic timing and the motor located in the lid, so that the tub can be placed on the stove for sterilizing when the lid is removed, the company says.

Packaged one to a "counter merchandiser" carton, it carries a list price of \$39.95 east of the Rockies.

Portable Electric Washer Doubles as Sterilizer

KEY NO. B-1131

RIPON, Wis.—An automatic clothes dryer featuring an "In-a-Door" lint trap, stainless steel or baked enamel top, and a view-level control panel across the top rear of the unit has been introduced by the Speed Queen Corp. here.

The deluxe DE-6 dryer is equipped with the stainless steel top, while the standard DE-7 has the baked enamel top.

Other features of the dryer are a "Sun Blast" heating element, six-way "Hurricane" venting, "conditioned air" drying, automatic timer warning, and safety overload electric motor with an automatic cut-off switch in case of operational failure.

The dryer is operated by an automatic timing device in conjunction with a heat control thermostat. Air is sucked through the dryer using the vacuum drying principle. A suction fan pulls heated air through the smooth, rust-resistant, rear perforated cylinder.

With the combination of heater and vacuum drying, it is possible to dry the average load of clothes in approximately 35 to 40 minutes, the company says.

The adjustable thermostat makes it possible to select proper drying temperatures and to dry woolens and other delicate fabrics if care is taken and the temperature control is set on low. The drying temperature is approximately 125° at this setting.

When the door is opened by the latch at the top of the door, the dryer automatically stops. This safety feature is particularly desirable where children are present.

The patented pull-out cylinder type "In-a-Door" lint trap is easily accessible and catches all of the lint before the air is drawn into the outlet duct, thereby eliminating many service problems caused by accumulation of lint in the air passageways.

The large 15-in. door permits easy access to the clothing. It is possible to view the interior of the cylinder without any interior light.

The smooth drum of the cylinder is divided by three, full-depth, wedge-shaped baffles located so that clothes may be fluffed at the exact time the baffle plate at the rear

Speed Queen Dryer Has 'In-a-Door' Lint Trap

spreads the moisture to the proper areas.

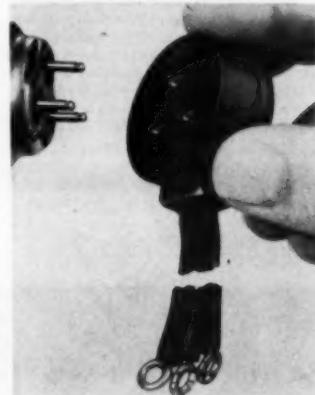
The safety thermostat located at the rear of the drum is an extra safety feature. The thermostat automatically shuts off the heating element should the temperature reach the danger point in the interior of the cylinder. There is no chance of scorching or burning the clothes in case of operational failure of any kind.

The safety thermostat has an automatic re-set and does not require a fuseable link replacement. The $\frac{1}{4}$ -hp. motor is permanently lubricated.

A built-in over-load protector assures against possible burning out of the motor. In addition, there is a safety switch incorporated in the motor which automatically shuts off the heating element in case of motor failure.

The cabinet is 36 in. high, 30 in. wide, and 26 in. deep.

New Connector Case Is of Molded Rubber



KEY NO. B-1133

DEARBORN, Mich.—A new three-prong connector designed and produced by Riverside Mfg. & Electrical Supply Co. here is claimed to solve several problems for refrigerator manufacturers.

The part connects the refrigerator relay with a "Fusite" glass-to-steel hermetic terminal which is welded to the compressor.

Formerly made of a plastic material, the connector case was redesigned by Riverside engineers to be molded in rubber. This design change, the company said, "eliminates possibility of damage during storage or handling, and speeds assembly as well, since workers can handle the connectors with less care."

The contacts also were redesigned to permit faster assembly.

"Since the contacts are completely encased in rubber they cannot spring apart, thus the electrical connection is more dependable," it was stated.

"The additional structural strength of the molded rubber case and isolation of the three contacts give this newly designed connector a much greater 'pull-out' rating."

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Auto-Lite offers many thermometer styles, permitting plant-wide temperature observation at low cost. Standard temperature ranges from minus 60°F to plus 750°F. Send for latest catalog showing various types.

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ALLEN-BRADLEY QUALITY MOTOR CONTROLS

TEMPERATURE INDICATORS & RECORDERS

What's New (Cont.)

Flexible Charging Hose Can Hide In Your Hand



KEY NO. B-1134

CHICAGO—A new flexible charging hose called "Rediflex" type D has been announced recently by the Fine Products Co. here. This hose is 36 in. long and is said to be the most flexible charging hose available.

Users can, according to the company, "roll it on your fingers, hide it in your palm, and carry it in your hip pocket." It is equipped with

rapid couplers and a 45° "E-Z-Flow" elbow for quick connections.

The hose cover is close-woven, luster-coated, and extremely flexible. It has a non-kinking tight weave, 1,000 p.s.i. test. The inner core is made of heavy gas-tight neoprene. The connections are fastened by "bulldog teeth" grip on the hose by crimping metal forgings.

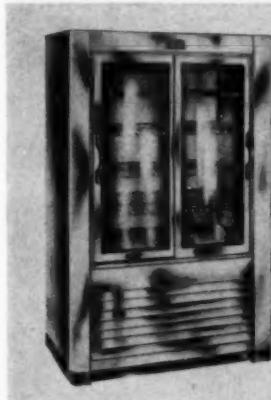
The E-Z-Flow elbow is made of forged brass and permits the gas to flow without turbulence or restriction. Being of one-piece construction, it permits no gas leakage, the company says.

Inside is a non-wobbling coupler guide. A seat holds the flexible gasket in place. This gasket, like an "O" ring, seals both joints. The higher the pressure, the greater the seal. Yet the gasket is easily replaced if necessary.

Knurled nuts at both ends require only "finger-tip" tightening.

The Rediflex type D charging hose is now available through distributor channels, the company says.

Glenco Display Reach-In Maintains High Humidity



KEY NO. B-1135

PHILADELPHIA—The Glenco Refrigeration Corp. here is introducing

a streamlined reach-in display refrigerator, as part of its new line of reach-in, display, and dough-retarder refrigerators.

The new model—No. GS-37-S—features a ceiling mounted blower coil that maintains a uniform high relative humidity, eliminates obstruction, and provides increased storage area. This refrigerator is all metal, welded, and is mounted on a Bonderized 2½-in. cold rolled steel base.

The exterior, door frame, and front are of highly polished stainless steel. Ends and interior finished in natural aluminum, specially treated to prevent corrosion. Fully insulated with glass fiber, the refrigerator is powered by a self-contained hermetically sealed condensing unit.

This refrigerator is designed to provide refrigerated display for dairy products, meat, beverages, and other perishable foods. It has a 37-cu. ft. capacity, is 54 in. long, 32½ in. deep, and 74 in. high.

New Line of Strikes, Locks, Hinges Offered

KEY NO. B-1136

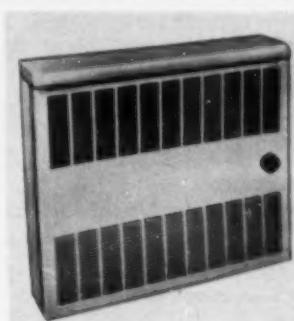
GRAND RAPIDS, Mich.—Announcement of a new line of flush-mounted locks, strikes, and hinges for all commercial refrigerators has been made by Grand Rapids Brass Co.

The new line—named the "Edgemount"—eliminates the need for mortising or cutting away cabinet metal or wood, according to company officials.

The Edgemount has a low silhouette and the surface mounting strike is completely hidden by the lock. The lock also mounts on either side of the door, eliminating the need for a right or left-hand model. It can be mounted with the handle up or down. The strike adjustment is $\frac{1}{16}$ in. to $\frac{1}{8}$ in.

Oilite bronze bushings provide two-way protection against tension and thrust and never require lubrication, the company said.

The undershot jaw on the strike, reputed never to relax its grip, was invented and patented by Grand Rapids Brass, the manufacturer further indicated.



Convection Heating Unit Has Built-In Thermostat

KEY NO. B-1137

BROOKLYN—A "Circle-Air" electric convection heating system with built-in thermostat in each unit has been announced by the Paley Mfg. Co. here.

Enclosed in gray metal cabinets, units can be installed recessed within or placed against the wall. Temperatures in each room are controlled by adjusting the automatic thermostat.

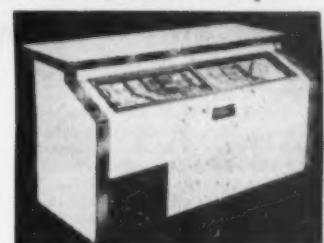
The manufacturer claims that the original cost of installing a Circle-Air home-heating system is about one-half to one-third that of an open flame system.

The Circle-Air employs a fin-type heating element which carries a five-year guarantee backed by a leading insurance company. The concealed fin is claimed to be so safe a child can play with the unit without harm. Air is warmed completely and circu-

lated through the room by the natural convection principle.

Rated at from 2,400 to 9,000 B.t.u., five sizes are available from 700 to 2,800 watts, either with or without built-in Robertshaw thermostat.

Slope-Front Freezer Has Formica Counter Top



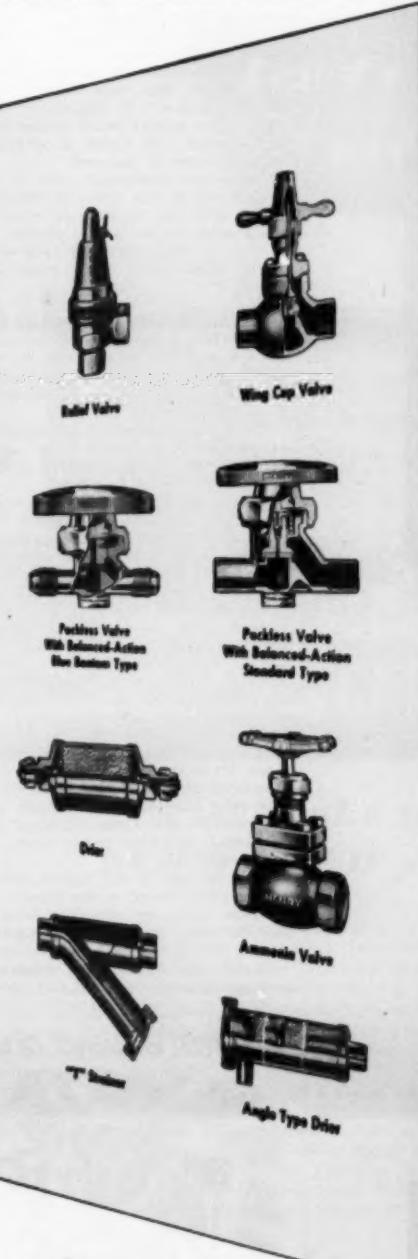
KEY NO. B-1138

NEW YORK CITY—A slope-front self-service frozen foods display case featuring counter height with mother-of-pearl Formica work surface top is being offered by General Refrigerators Corp. here.

The case offers both a 6-ft. long self-service freezer, and a counter for scales, displays, and "checkouts." Fluorescent lighting illuminates the interior while a full-width reflecting mirror increases display effect.

Called the SF-6, the case is self-contained with $\frac{1}{2}$ -hp. hermetic condensing unit. The cabinet is made of Bonderized steel finished in white enamel. The case is covered by an unconditional guarantee and is priced at \$399 net to dealers f.o.b. New York, complete with unit.

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Commercial Refrigeration

'Turn Key' Market Job In Atlanta Is Designed to Speed Service for Customers Who 'Buy on Run'

ATLANTA — Another "turn key" grocery store installation has been completed in the heart of downtown Atlanta by Refrigeration Applications, Inc., Husmann distributorship, headed by G. L. McWilliams.

This is the second store which the Husmann outlet has installed in the mid-city shopping area for Hickey's, which aims at being a "convenience" store for hurried shoppers rather than a complete supermarket serving families which buy a week's groceries at a time.

The first Hickey store was opened about a year and a half ago and both it and the latest one feature open self-service Husmann cases to speed service for the busy shopper buying food on her lunch hour or before catching the bus at night.

Running along one wall in the new store is 55 ft. of continuous open case consisting of five Husmann 11-ft. fixtures. One 11-ft. section is used for produce, the other 44 ft. handles meat. The store also features an 8-ft. double-deck dairy case and an 11-ft. L-11 open frozen food case.

Although not refrigerated, an attractive feature of the new store is a dry produce display built in one of

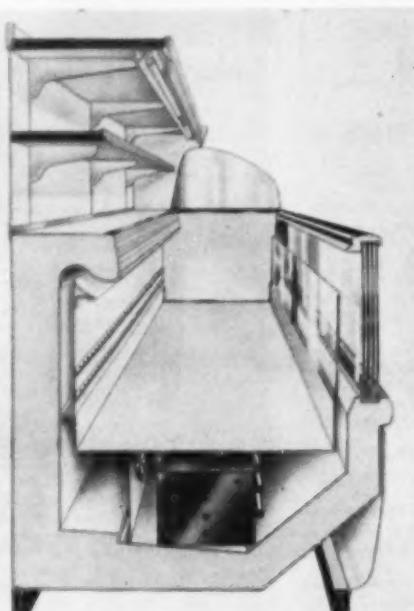
the front show windows. Five condensing units are involved on this job. One handles the produce case, two take care of the 44 ft. of meat case, and there's a separate machine for both the dairy and frozen food cases.

The units are equipped with combination air and water-cooled condensers, points out McWilliams, the installing contractor. Normally, the units operate on air cooling alone, but at peak conditions water is also employed. This insures adequate capacity with minimum water consumption.

This particular installation involved some fast last-minute work on the part of McWilliams' crew through no fault of the distributorship, the freight car carrying the cases for this store was pulled out of a train and side-tracked because of a flat wheel.

"It was 'lost' for several days until we traced it to the car shop," McWilliams said.

The car finally pulled into Atlanta late one night and McWilliams was waiting with his crew and trucks. Using automobile headlights for illumination, the gang unloaded the cases.



NEW USE for Recold water defrost coils is in low temperature self-service display cases. Cutaway view shows location of the coil in the bottom of new-type case put on the market by Weber Showcase & Fixture Co. Defrosting is said to be accomplished in less than 10 minutes.

Bengle Covers Michigan For Worthington Corp.

HARRISON, N. J. — Charles V. Bengle has been appointed air conditioning and refrigeration district representative for the state of Michigan for Worthington Corp., according to T. J. Kehane, assistant vice president and general sales manager. Bengle will supervise application engineering and sales for Michigan and will make his headquarters at Detroit, Kehane said.

Bengle was graduated from Rensselaer Polytechnic Institute with a B.M.E. degree in 1938 and after four years' experience in the field of chemical process air conditioning and refrigeration, he became an application engineer for Worthington.

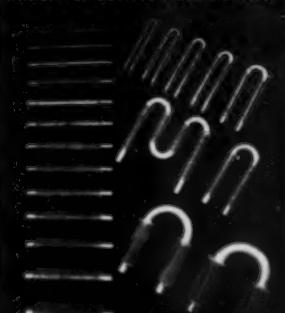
After serving four years in Worthington's air conditioning and refrigeration division at Holyoke, Mass., he served successively in Worthington's Cincinnati and Nashville offices as an air conditioning and refrigeration district representative.

NEW PRODUCTS?

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it over and around the merchandise to insure complete protection.

A by-pass tube installed in the case allows the water in the inlet pipe to drain at the end of the defrost cycle, thus preventing freezing of inlet water. A drain located at the front center of the case has provision for optional routing of water to the back or to either end of the case.

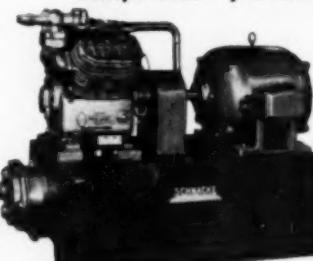
Century Engineering Names Bridge District Sales Mgr.

CEDAR RAPIDS, Iowa — Century Engineering Corp. here has appointed Tom G. Bridge district sales manager, according to W. S. Moellering, Heating Div. sales manager.

Headquartered in Cincinnati, Bridge will direct heating equipment sales in Century's east central district, which includes southern Ohio and Indiana, Kentucky, and eastern West Virginia.

DIRECT DRIVE

The industry's smallest, most compact compressor—yet the most rugged.



Direct Drive Compressors are available in 15 H.P., 30 H.P. and 60 H.P.

Compactness, efficiency, and low price are advantages in all Schnacke compressors and condensing units from 3 H.P. to 60 H.P.

Ideal for multiple installation in close space requirements.

Two Schnacke 50 or 60 H.P. compressors require no more space than ordinary 100 to 125 H.P. compressors. They are ideal for multiple installations up to 350 tons, and provide many advantages of automatic control and economy. Schnacke production manufacturing methods make possible the highest quality, including bronze steel back bearings, force feed lubrication, and rugged design and construction, at lower cost.

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Recold Water Defrost Coil Put In Weber's New Low Temp. Self-Service Display Case

LOS ANGELES — Within the past few months Recold water defrost coils have been put to a new use in self-service low temperature display cases, report officials of Refrigeration Engineering, Inc., which produces such equipment.

Weber Showcase & Fixture Co. has placed on the market a new type of low temperature self-service display case which has been called "The Blizzard Super." A feature of this case is the Recold water defrost low temperature coil which is installed in the bottom of the case.

The entire defrosting cycle is accomplished in less than 10 minutes' time, with no appreciable rise in temperature in the actual product, it is claimed. The defrosting cycle normally takes place once every 24 hours.

The water defrost method is accomplished by means of ordinary tap water which is sprayed over the coils for a matter of minutes, with the result that all of the frost is completely and quickly melted and washed away, it is pointed out.

The entire system can be defrosted automatically by means of an automatic timer that is installed in the system.

The water, which is brought in by means of an inlet located at the front of the case, flows into a spray pan above the coils. At a predetermined time the compressor and fans are automatically turned off and the water is turned on for a period of approximately eight minutes, during which time the frost is washed off the coils. After the coils have drained, the compressor and fan are again turned on and the cycle is completed in a matter of just 9 or 10 minutes.

During the time that the defrosting takes place there is very little rise in cabinet air temperature and within a very short time the cabinet air temperature has again returned to its normal sub-zero temperature, it is stated.

With the use of the Recold water defrost coils located in the bottom of the case, there are two fans located beneath the commodity compartment.

These fans pull the refrigerated air through the coil and force

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ABOVE: Mobile laboratories for testing Coca-Cola are being air conditioned for summer comfort of technicians.



TWIN sets of coils and filters in forward section of trailer provide clean cool air during hot summer days.

Laboratories on Wheels

Air Conditioning Maintains Cool Comfort for Technicians In Coca-Cola Testing Trailers

ATLANTA — To insure that the numerous bottling plants throughout the country which are operating under its licensing agreement are turning out a product of uniformly high quality, the Coca-Cola Co. here maintains a fleet of 30 laboratories on wheels to make periodic checks at each plant.

These are small house trailers completely fitted out with ovens, Bunsen burners, etc., so that all the necessary tests can be run off by the crew of technicians. This can be an inter-

esting and not unpleasant job, but when the hot summer sun is blazing down on the flat roofs of these small trailers, inside temperatures can soar as high as 110° F. or more.

This is being changed, however, thanks to air conditioning, with a system devised by George Hightower, who heads Conditioned Air Engineers, General Electric outlet here.

"It's strictly a comfort cooling job, but we are trying to maintain about the same range of temperature within the trailers year-round to minimize variables in the laboratory tests," Hightower explains.

"The big problem is the pull-down, which is one reason why a 1-ton load was figured," he points out. "The burners and oven also add considerably to the load."

Major problem in engineering, though, was to find space for the air conditioning system in the trailers which were already filled with equipment. A "remote" type of installation proved to be the answer.

Coils and blowers are at the front of the trailer while the condensing units (two are used) are installed in the trunk at the rear.

There are two separate $\frac{1}{2}$ -ton systems individually controlled so that one or both may be operated as required. The low sides consist of two Larkin "Humitemp" four-row coils with a $10\frac{1}{2}$ -in. by $10\frac{1}{2}$ -in. face area. These are located in a cabinet which comes down from the roof at the front end.

Each coil has its own 10-in. by 16-in. by $\frac{1}{2}$ -in. filter on the incoming side and a special drain arrangement to carry away condensate. Refrigerant is fed to each coil through a Sporian drier-filter and limit-load expansion valve. A Larkin heat exchanger is provided for each system.

A single propeller type fan handles the air through both coils. It's a 10-in. Redmond model running at 1,500 r.p.m. but is wired through a three-step control so that air delivery may be varied as desired.

Soft copper tubing connects the



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coils with the units, running between the rear compartment and the front cabinets through a $1\frac{1}{4}$ -in. conduit attached to the trailer chassis under the floor.

Two $\frac{1}{2}$ -ton G-E hermetic units are located in the rear trunk. These are air-cooled machines, and as such created a problem of adequate airflow across the condenser. A simple solution would have been installing grilles in the side and/or trunk door, but this was not found to be permissible.

The answer here was to operate the units with the trunk door open, a baffling arrangement having been devised so that the warm air leaving the condenser wouldn't be short-circuited back across the condenser coil again. A booster fan was installed to increase the air flow through the compressor compartment.

"Another problem arose from the fact that the condensing units are spring-mounted for normal applications," Hightower commented. "We were afraid that highway travel would break the springs on the units when the trailer is being hauled from one plant to another. To prevent this we arranged a lever-operated hold-down clamp over each compressor attached to an angle iron bar to clamp the units down tightly before the trailer is moved."

Although having two separate $\frac{1}{2}$ -ton systems in the trailer does permit variable cooling capacity, this was not the prime reason for splitting the installation, it was also pointed out.

"Low voltage is frequently encountered, and the lines at most bottling plants, as in many other places are already loaded to or beyond ca-



AIR CONDITIONING

Carrier Honors 4 Firms as Air Conditioning Pioneers

PHILADELPHIA—Four major industries in the Philadelphia area were cited as "pioneers in the use of air conditioning" at a luncheon meeting celebrating the 50th anniversary of the air conditioning industry, which was founded in 1902 by the late Dr. Willis Haviland Carrier.

Bronze plaques were awarded to representatives of the companies by Lloyd Church, Philadelphia district manager for Carrier Corp., because they were the first in their respective industries to make use of air conditioning as an aid to production and merchandising.

Receiving plaques were Howard U. Smith of Bethlehem Steel Corp., Louis L. McIlhenny of Stephen F. Whitman & Son, Inc., Frank Kately of ACF-Brill Motors Co.; and Ross M. Pfalzgraff of American Viscose Corp.

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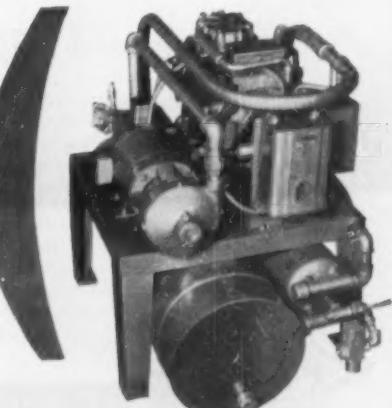
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FLOW-COLD* packaged liquid chiller

The beautiful Biscayne Terrace Hotel in Miami, Florida has insured happier moments for its guests by the installation of a 5 horsepower Flow-Cold Liquid Chiller to provide chilled drinking water in all the 200 rooms and bubbler outlets in the lobby.

This installation becomes truly remarkable when you realize that the Flow-Cold servicing all these outlets is so compact that it takes up only twelve square feet of floor space and stands only three feet high.

You can provide the same degree of liquid chilling efficiency for your customers simply by specifying the Acme Flow-Cold Packaged Unit. It is the most versatile and compact unit on the market. It is being used successfully for air conditioning industrial coolant cooling, as a heat pump, or for solution cooling, as well as for chilling drinking water. Write us today for more complete information on the variety of duties the Flow-Cold can perform.

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Flow Cold Division

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Opportunities for Servicemen --

(Concluded from preceding page) ments in favor of codes and licensing have considerable force and validity. Standards of proficiency could be set up which would automatically exclude fly-by-nighters, students with insufficient experience, in fact, everyone who could not qualify by means of a strict but impartial and fairly conducted examination.

On the other hand, licensing may at best be but a negative approach to the over-all problem. True, it would set minimum standards, and thereby weed out the worst misfits and incompetents; but, just as there are doctors, good doctors, and specialists, all equally admitted to practice by possession of their license, so would there be degrees of competence and ability even among licensed engineers.

Set Your Own High Standards

The adoption of voluntary codes of ethics by such organizations as ASRE and RSES, with their appeal and challenge to a serviceman's better nature, is a more positive approach. But from ancient times right down to our own Country's abortive experiment with national prohibition, all attempts to enforce a particular brand of morality by legislation or fiat have met with dismal failure. The only way to get any man to do right and play fair is to educate him to want to do it. Unfortunately, too many servicemen's education has been sadly neglected in this regard. So in the last analysis it boils down to a matter of individual conscience.

But granted that, licensing or no, a man sets his own high standards and tries to live by them, it doesn't always necessarily and automatically follow that his virtue will be rewarded with all the business he can handle. The sad fact is that too often he sits idle in his shop while his cut-rate racketeering competitor breezes by on his way to lynch another poor sucker who is trying to get by "cheap."

John Spence, service manager of Hussmann Refrigerator Co., St. Louis, has kindly offered several very valuable suggestions to bring some degree of order to the situation. As an effective means of squelching the racketeer, he advocates the tried and true policy of adhering to the highest possible standards of ethics and craftsmanship at all times.

He emphasizes that price cutting is the poorest possible way to try to build a business; instead, he urges a bona fide service engineer to provide himself, first of all, with the latest and best test equipment, then to set a commensurate hourly or other rate for the use of such equipment and his own services. He gives the following example.

Nothing But a 'Tinkerer'

"A serviceman is called in on a butcher's display case. He puts his gauges on the compressor, sits there and watches the operation for an hour or two at \$2.50 an hour,

makes an adjustment on the valve or the control, says he believes that will take care of it, collects \$5.00 and departs. Only, in more cases than not, it didn't take care of it, and that night a whole case full of meat is ruined.

"So the butcher is forced to call a true service engineer. His rate is, perhaps, five dollars an hour; but does he sit there hour after hour watching gauges and tinkering with adjustments? Not on your life; before he touches any part of the machine, he sets a recording thermometer in the case, connects an operation recorder to the motor, and tells the butcher he will return in 24 hours.

"By means of the charts on his instruments, this service engineer does not guess, he knows what the equipment is doing or failing to do, puts his finger right on the trouble, and proceeds to cure it. He has wasted no time watching gauges, he was out doing other work during the time his instruments were writing their record, and if his final charge is several times that of the first man, it is certainly well worth it to the butcher who saves his valuable stock of meats."

Spence readily admitted that the public is prone to call in the "cheap" man first, in an attempt at false economy, but he insists that better work, aided by the correct use of the latest and best test instruments, and firm adherence to a fair rate of pay for high quality work, will win out in the long run over the racketeer.

New Applications Make New Jobs for Servicemen

He also is very optimistic about the future for the really qualified service engineer. With the many new applications of refrigeration and air conditioning, especially since the war, the entire industry is making seven-league strides toward a new era which will dwarf its present status more by comparison than the present shades out the age of the wooden icebox. In all this, the service engineer will be needed for many more jobs than he even dreams of now.

But Spence was also willing to admit that some of these present "plaguey" conditions in the game may endure for as long as the next 10 years or so. Besides adhering to a strict policy of better work, he also suggests as ways for present-day hard-pressed servicemen to help themselves the following: selling new equipment, and diversifying their service work so as to include radios, television, and other appliances, provided always that they can equip themselves with the requisite knowledge and tools to do the job right.

However, "there's the rub," too! When a man has intensively specialized in a difficult subject like refrigeration for the greater part of his adult life, diversification may be difficult and even impossible. It is not easy for a middle-aged man to acquire a new skill.

An Engineer at Heart

Besides, every true serviceman is an engineer at heart; he loves and takes a fierce pride in both his subject and in his own knowledge and skill. This pride will not allow him, without causing him to gag over it, to descend to the low level of a tinkerer or "fixit" man, who can be called in to tighten a bolt on Mrs. Jones' 1935 model wash machine, or fix a door lock, or stop a leak in the plumbing, even if he knows how and does these things in his own home for his own dear wife. He considers himself a modern Merlin who has delved deeply into the esoteric art of heat transfer, and who can wield the wand of his ratchet wrench to ensnare bare metal with the mystic mantle of frost. Descend to tinkering? Never!!

So, caught between the Scylla of new equipment that needs no servicing and the Charybdis of old,

traded-in equipment that isn't worth servicing, the present-day service engineer finds himself in much the same quandary as faced the movie-house musicians of the late twenties and early thirties when sound movies replaced the silents.

If he loves the game enough that he wants to stay in it until the unquestionably bright future casts a little more warmth and illumination over the drab and bleak present, it would seem that his best bet is to follow Mr. Spence's suggestion and take on a side line of some kind or other.

If he wants to sell and install equipment, there are cabinet and case manufacturers who will cooperate, provided he proves his ability. There are also hermetic units of the highest quality which are bolted rather than case-welded, thus permitting full field servicing when required; these undoubtedly deserve the full support and patronage of the service engineer.

Explore New Fields

Widened by the rapid rush of recent developments, the service engineer has perhaps tended to sit down and bemoan his fate, instead of exercising the ingenuity that carried him so triumphantly through the war and got him off many a tight spot.

Forget the domestic business; there never was much real money in it anyway. Let the old clunks rot and look around for the new opportunities in truck refrigeration, commercial installation, selling, servicing; consider the heat pump to see if it will yield an honest dollar or two in your community. And there are the many applications of air conditioning. A

little inquiry should turn up many a latent opportunity.

But nothing comes to the man who sits and bemoans the passing of the "good old days." If there is one good thing that can be said for times like these, it is that they certainly do not permit any man to grow soft or lazy, physically or mentally. The penalty for such an attitude is to be buried in one's own rut by the juggernaut of onrushing events and changes.

Philco Appoints Wm. Wight Director of Public Relations

PHILADELPHIA—Appointment of William Wight as director of public relations of Philco Corp. was announced recently by William Balderson, president.

Wight, Washington vice president of Carl Byoir & Associates, has been in charge of the nationwide public relations firm's capital activities for the past 14 years. Prior to that time he was a member of the Washington Bureau of the Associated Press, having joined that news-gathering agency in 1927 and transferred to Washington in 1929 to inaugurate a regional reporting service for AP member papers.

In 1944, on leave from Carl Byoir & Associates, Wight directed press relations for the Republican National Committee. After joining the Byoir firm in 1938, he was made an associate in 1942 and a vice president in 1944.

Wight will be headquartered at the Philco Corp. executive offices in Philadelphia after undertaking his new duties on Dec. 1.

General Controls Names Boehm Asst. Manager of Appliance, Heating Div.

GLENDALE, Calif.—General Controls Co. has announced the appointment of R. C. Boehm as assistant manager for both the appliance and heating divisions and B. L. Lorch and Russell Strongman as regional sales managers.

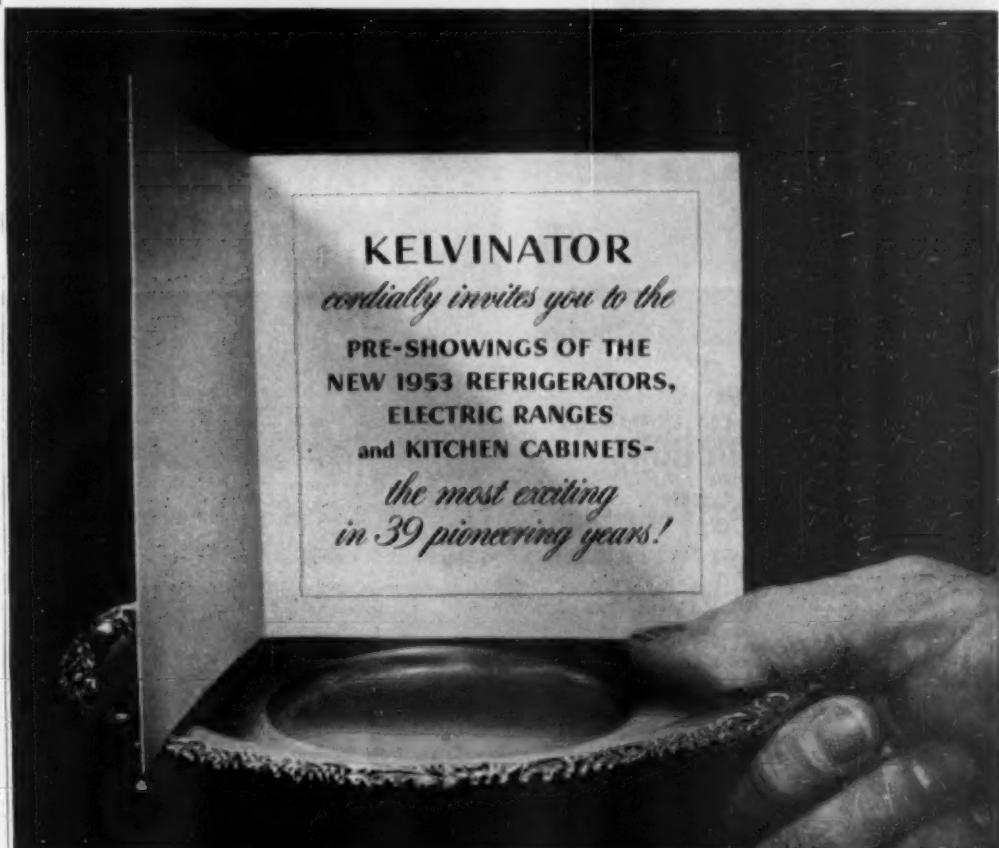
Boehm was formerly manager of the General Controls factory branch office in Birmingham, Ala. He will be headquartered in General Controls' new plant in Skokie, Ill., and will cover the territory east of the Mississippi.

His appointment highlights the firm's recent expansion into the middle western and eastern markets, accelerated by the establishment of manufacturing and warehousing facilities in the greater Chicago trading area. Boehm will work under the direction of Fred E. Weldon, sales manager for General Controls.

Lorch, formerly Chicago factory branch office manager, has been appointed regional manager for the middle western territory. He will supervise General Controls offices in Minneapolis, Milwaukee, St. Louis, Chicago, Indianapolis, and Des Moines.

Strongman will supervise the eastern seaboard area, covering factory branch offices in Newark, New York, Hartford, and Boston.

General Controls also has named additional sales representatives in its present middle western and eastern branches.



Your invitation to better business

HERE is your very cordial invitation—exclusively yours as a Kelvinator retailer—to attend the Kelvinator New Product Pre-Showing in your area.

At this pre-showing, you will see the brand new, feature-filled 1953 line of Kelvinator refrigerators and ranges. You will see an exciting new line of Kelvinator kitchen cabinets and sinks, a new upright freezer and new room air conditioners. And you'll be impressed with the story of other new Kelvinator products to come in the year ahead.

You will also hear the impressive story of the one Franchise that means progress and profits in an indus-

try which has recently seen unsound practices make retailing profits difficult.

Here is one of the most important events in your history as a Kelvinator retailer—a great forward step by which Kelvinator will help you gain a much greater volume of business. Since Kelvinator success can stem only from your success, we are most anxious for you to obtain the benefit of these important meetings. We sincerely believe you will express the same enthusiasm that we feel about your future with Kelvinator. So plan now to accept this invitation to a greater future with Kelvinator.

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Refrigerators • Ranges • Freezers • Water Heaters • Dehumidifiers • Kitchen Cabinets • Sinks • "Electro-Brain" Garbage Disposers • Room Air Conditioners

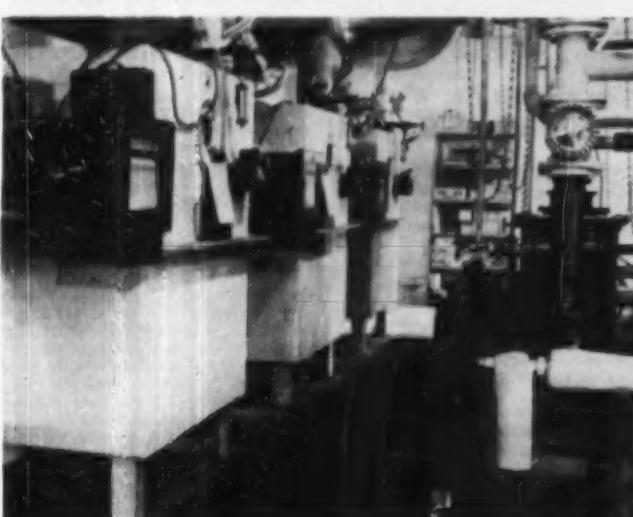
Representation Wanted

If you are a Manufacturer's Representative now calling on truck-body and highway trailer builders, truck manufacturers, and major truck fleets, you may qualify to represent the nation's fastest growing line of ice and mechanical Mobile Refrigeration Equipment in

Cincinnati, Cleveland, Kansas City

Exclusive features and established acceptance pave the way for quick sales. Nationally advertised. Previous refrigeration experience desirable but not essential.

Address Box 4188, Air Conditioning & Refrigeration News



ABOVE—Rear of three of the plasma dehydrating units showing their vacuum pumps and recording and control instrumentation.



LEFT—Loading frozen plasma into the drying cabinets for the dehydration process.

"some combinations can't be beat!"

Tenney UNIT COOLER

Tenney Unit Coolers, scientifically designed in modern style for safe comfort cooling, incorporate the correct ratio of prima to secondary surfaces with a staggered arrangement and rifled interior for highest efficiency. They have added capacity, assured defrost cycles, "seal" elimination, variable directions of air flow, non-leak joints and a positive bond of faceted fins to tube. And—they're easy to install, easy to service.



It takes a combination—a well integrated Tenney team of top engineering and practical application of the lessons of experience—to produce the most efficient and durable refrigeration equipment. Take this Tenney Unit Cooler... years of research and experience in the refrigeration field have gone into its design and manufacture. This experience, combined with the most modern engineering methods, is your guarantee of complete satisfaction. That's why, for either standard or special installations, it pays to "take it to Tenney."

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Tenney brings you the advantages of advanced engineering and manufacturing facilities to handle any and every refrigeration problem, for the Tenney line is built to suit your needs. Outline your problem, and let us prove that a Tenney unit will solve it.

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Dept. E, 26 Avenue B, Newark 5, New Jersey

Engineers and Manufacturers of Refrigeration and Automatic Environmental Test Equipment

Blood Plasma Processing

Largest Plasma Plant In World Dehydrates Blood Donated In Eastern Half Of U.S. for Battlefield Use, Civilian Institutions

WEST POINT, Pa.—Recently completed by United Engineers and Constructors for Sharp and Dohme, Inc., a new blood plasma production center here efficiently processes from 6 to 7,000 pints of whole blood per day, according to N. H. Harrington, manager of Sharp and Dohme's Armed Forces plasma operations.

Writing in *Instrumentation*, publication of the Industrial Div., Minneapolis-Honeywell Regulator Co., Harrington comments:

"As recipient of most of the blood donated in the eastern half of the U. S. A., operations at the new laboratories play a vital role in fulfilling the urgent requirements of the Armed Forces for battle casualties as well as those of civilian institutions for general use. Largest in the world, the new plant is devoted exclusively to the production of dried human plasma.

USE LYOPHILE TECHNIQUE

"Dried plasma, produced by the lyophile technique of dehydration developed by Sharp and Dohme scientists in 1941, is the kind most adaptable to battlefield use, since it can be stored for long periods and requires no special storage conditions.

"From an overall standpoint, United Engineers and Constructors jointly with Sharp and Dohme designed and engineered the plant to assure the utmost accuracy in performing the various steps of production. Work is carried on in specially air conditioned rooms and completely aseptic conditions are maintained at all times.

"Reasons for the extensive use of plasma—basic liquid of the blood—stem from the many problems involved in matching, storing, and shipping whole blood," Harrington says.

"Only under ideal conditions does whole blood retain its lifesaving qualities for its short life span of 21 days.

"Eight different types of blood must be stocked in a complete blood bank. At the battlefield these facilities are well nigh impossible. The use of plasma eliminates many of these problems. If stored under properly maintained conditions, liquid plasma can be used for 24 months. However, to maintain its usefulness, special storage facilities are required.

"To solve this problem, Sharp and Dohme scientists, after extensive research, applied the lyophile technique to the production of plasma. This process is actually a method of dehydration which preserves the stability of substances that are unstable in liquid form. Essentially, the process comprises the removal of the water content of the plasma by sublimation from the frozen state and subsequent preservation by vacuum. The result is a dry form of plasma that can be stored for five years and requires no special storage conditions. It can thus be readily transported to the combat area and used on the spot to combat shock which is the major cause of death in battle.

CENTRIFUGING IS FIRST STEP

"Plasma processing starts with a centrifuging operation. Immediately after being unpacked from refrigerated containers in which it is transported, the whole blood is brought to the centrifuge room. Here it is centrifuged while still in the bleeding bottle originally used at the donor point. Centrifuging separates the plasma from the red cells. Red cells are discarded. Consequently, about two pints of blood are required to produce one pint of plasma.

"After centrifuging, plasma is drawn from the bleeding bottles through the use of a vacuum system in air conditioned draw-off rooms. Pooling bottles containing plasma from 250 bleeding bottles are used to collect the plasma which is next irradiated with ultraviolet light. During irradiation, a thin film of plasma is treated continuously by ultraviolet light as it flows from one pooling bottle to an empty one through special irradiating machines. Ultraviolet irradiation inactivates possible contaminating organisms in the plasma.

"Following irradiation, the plasma is run off into market containers, each holding 600 cc. of plasma. Market container bottles are placed in a freezing bath of cold alcohol at -70° F. The bath is equipped with

devices to rotate the bottles continuously during freezing. The results of this revolving is a shell freeze in which the outside surface of plasma freezes toward the center in layers. Once frozen, the plasma is stored, if necessary, in a cold vault at -30° C. until placed in the dehydrating cabinet," Harrington explains.

DRIES BY VACUUM

"Six drying cabinets are employed for dehydrating operations. Each cabinet processes a load of 660 bottles of frozen plasma. In processing, a high vacuum is imposed gradually on each cabinet during the drying cycle. As the vacuum increases, the temperature of the shelves of the cabinet is gradually increased to 145° F. by circulating hot water through them. Maintenance of a high vacuum during the dehydration operation keeps the frozen plasma from melting.

"When the plasma is completely dried—after about 45 hours processing time—the cabinets are unloaded and the bottles are stoppered under vacuum and sealed. After the performance of control checks and other finishing operations, the dried plasma is packaged. Specially prepared diluent water for injection is filled in companion bottles which are stoppered and sealed. The water is sterilized in the bottles by steam at a temperature of about 250° F.

"Temperatures within the drying cabinets during the dehydration or lyophilization process are critical. Unless the processing temperature is maintained within close tolerances—plus or minus 1° C.—melting will occur," he emphasizes.

"So long as temperatures are maintained at the precise level required and an uninterrupted vacuum is retained in each cabinet, the dehydration apparatus will cause water vapor to be given off from the frozen plasma. This vapor is condensed and fails to the bottom of a receiver in the form of snow which is periodically removed. The operating pressure is 100 microns of mercury absolute.

"Maintenance of processing tem-

perature precisely at the necessary level is accomplished through the use of Brown Electronik strip chart proportional controllers, which are equipped with Electr-O-Line relays which provide automatic reset actions. Processing temperatures are sensed by copper constantan thermocouples which measure shelf temperatures in the drying cabinets. These thermocouples are connected to respective Electronik recording controllers for each cabinet.

"Thus, each controller evaluates the individual cabinet temperature and responds to any deviations from the desired temperature by initiating an appropriate electric control action. Through the operation of the relay, position proportioning control action embodying automatic reset is accomplished by means of a final control element. This comprises a steam valve equipped with a Honeywell valve linkage and motorized valve assembly. In operation, the controller continuously positions the steam valve so as to maintain the cabinet temperature precisely at the desired level," Harrington points out.

3 TEMPERATURES RECORDED

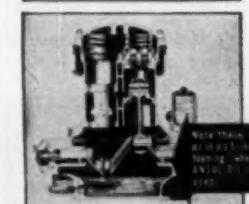
"In addition to recording and controlling the cabinet temperature, each electronic instrument records three other temperatures, observance of which is essential to correct processing. These are the condenser temperature (below zero indication) and the actual temperatures of two bottles of plasma situated in critical thermal positions in the cabinet. Plasma bottle temperature records provide a check that the actual plasma processing temperature has not deviated from the desired level.

"A constant vacuum check on the condensers functions as a monitor for leaks in the system and enables a processing run to be followed to its conclusion, since the vacuum is recorded on another Electronik recorder. An Alphatron, a cold cathode, ionization type vacuum gauge, is employed to determine the vacuum measurement. Results of this measurement are indicated and recorded on the multiple record electronic recorder.

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INDUSTRIAL CHEMICALS AND DRY CHEMICAL FIRE EXTINGUISHERS



Current LITERATURE available

To obtain further information on the literature listed below, please refer to key number preceding listing. Please use the "Information Center" form on "What's New" page.

Circuit Breaker Manual Explains Principles

KEY NO. N-1130

TRENTON, N. J.—A new manual explaining operating principles of basic circuit breaker designs, and providing engineering data on factors of application has been published by the Heinemann Electric Co. here.

Included are simplified diagrams showing the three basic types of circuit breakers in general use today with brief descriptions. Through colored charts and diagrams, explanations of temperature factors, inrush current effects, tripping and reset time, and time delay curves are provided. Also discussed are the questions of quick and slow make-and-break, and wire deterioration rates at various ampere values.

Second Edition Published Of Silver Brazing Guide

KEY NO. N-1131

NEWARK, N. J.—A second edition of "A Complete Guide To Successful Silver Brazing" has recently been published by the American Platinum Works here.

The 48-page illustrated brazing manual covers all aspects of silver

brazing applications and procedures. It provides answers to general questions on low temperature silver brazing, brazing alloys, preformed brazing shapes, plymetals, fluxing, heating methods, cleaning, and inspection.

More than 50 drawings and charts are used to illustrate the text. A specially designed graph calculates quickly the thermal expansion of metals at various silver brazing temperatures.

Copies are available without charge upon request.

Room Air Conditioners for Control Systems Described

KEY NO. N-1132

HARRISON, N. J.—Room air conditioners to be attached to central systems are the subjects of two specification sheets published by Worthington Corp.—C-1100-S82 and C-1100-S83.

One sheet each describes the ceiling mounted conditioners and the vertical floor mounted conditioners. Both come in three sizes—200, 400, and 600 maximum c.f.m. They are furnished with a coil suitable for either direct expansion or chilled water.

Designed for complete year-round air conditioning, they provide heating, cooling, dehumidification, ventilation, circulation, and cleaning of the air. The standard units consist of fan section, fan, 3-speed motor direct connected, 3-speed motor control, coil section including 4-row chilled water or direct expansion coil, cleanable filters, and drip pans, all enclosed in a cabinet.

Specifications include a discussion of construction, accessibility, flexibility, coils, control, insulation, cabinet, finish, and drain pans. Physical dimensions and cut-away line drawings are also included in the specification sheets.

Baldwin-Hill Issues New Catalog on Insulation

KEY NO. N-1133

TRENTON, N. J.—Industrial Insulation Products is the subject of a new catalog published by the Baldwin-Hill Co. here. This 20-page, illustrated catalog describes insulating materials which cover the complete temperature range from -150° F. to 1,800° F. Insulating cement, block, blanket, felt, and pipe covering are a few of the products shown in the catalog.

Complete with thermal-conductivity graphs and heat loss charts, this catalog also shows list prices subject to trade discounts. Brief application descriptions together with typical uses, sizes, packaging, and densities are also a part of the catalog.

Copies of this new catalog are available on request.

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NEW YORK 10, N.Y.

Wall Chart Helps Welders On Job Select Alloy, Flux

KEY NO. N-1134

WHITE PLAINS, N. Y.—A wall chart 18 by 27 in., designed to aid welders on the job to select the particular All-State alloy and flux which will best serve the welding, brazing, soldering, cutting, or tinning job at hand and at the least cost, has been published by All-State Welding Alloys Co., Inc.

Data on 41 alloys and appropriate fluxes are arranged so as to make accurate selection as nearly automatic as possible. All All-State alloys and fluxes are covered according to the metal upon which work is to be performed.

Booklet Lists 61 Models Of G-E FHP Gear Motors

KEY NO. N-1135

SCHENECTADY, N. Y.—A new eight-page two-color bulletin on fractional-horsepower gear-motors listing 61 standard models has been announced as available from the General Electric Co. here.

Designated as GEA-5678, the publication describes the applications for FHP gear-motors and outlines a simple method of determining correct horsepower requirements with the use of an ordinary pipe wrench and fish scale.

The bulletin contains descriptions, cut-away drawings, selection charts, and dimension tables for both concentric-shaft and right-angle shaft gear-motors, includes a section on maintenance pointers, and a complete list of G-E apparatus service shops.

Spec Sheet on Thermometers With Pneumatic Control

KEY NO. N-1136

PHILADELPHIA—Specification sheet 812 describing Brown indicating and recording thermometers with pneumatic control has been issued by the Brown Instruments Div. of Minneapolis-Honeywell Regulator Co. here. Construction and engineering details are included.

Westinghouse Issues Christmas Lighting Books

KEY NO. N-1137

PITTSBURGH—A 20-page booklet with 63 ideas for large scale Christmas lighting schemes is available from Westinghouse Electric Corp.

These 63 designs, which are presented through line drawings in the new booklet, show how store fronts, streets, schools, and community houses can be decorated for Christmas. Lighted wreaths, silhouettes, stars, and large candles are effectively utilized in the designs. A section of the booklet tells how to make the various components.

A similar but smaller booklet for homeowners is also available. This 11-page booklet gives picture examples of outdoor and indoor displays, describes each, and tells the reader how to construct them.

Both booklets include descriptions of the lamps necessary to effect the displays.

A copy of the commercial Christmas lighting booklet (A-5999) may be obtained through utility companies and Westinghouse Lamp Div. sales offices.

SLANTS on Service

"Slants on Service" is a handy "package" devised by the NEWS to meet the needs of its busy readers who are engaged in the service and contracting business.

Three-phase or polyphase motors come in four different basic designs, a motor service expert notes.

1. Design A has a normal starting torque and a normal starting current.

2. Design B has a normal starting torque and low starting current.

3. Design C has a high starting torque, low starting current.

4. Design D high slip, high starting torque, and a low starting current.

Design A and B type motors are used on applications that are not too hard to start.

The exception to this is the design B motors in small sizes that are used on compressors.

Design C motors are not generally made in sizes under 3 hp. and are used on larger compressors and hard to start applications.

Design D motors are generally of the high slip type. They are used on punch presses or other applications where we have a varying load. Unless these motors were of the high slip type, this varying load would cause a varying influx of current and would intermittently overload the line.

EXTRA DRY ESOTOO (bp +14°F.)

The refrigeration grade SO₂ that service and maintenance engineers have endorsed for more than 20 years. Comes in all popular cylinder sizes.

V-METH-L (bp -10.7°F.)

"Virginia" Methyl Chloride is made specifically for refrigeration use. Its low moisture content, low acidity and narrow boiling range meet the most exacting requirements.

"VIRGINIA" DISTRIBUTES...

"FREON" REFRIGERANTS

(a product of "Kinetic" Chemicals)

"FREON-113" "FREON-114" "FREON-11"
(bp 117.6°F.) (bp 38.0°F.) (bp 74.7°F.)

"FREON-12" "FREON-22"
(bp -21.0°F.) (bp -41.4°F.)

SUNISO REFRIGERATION OILS
PERMAGUM SEALING COMPOUND
PRESSTITE INSULATION TAPE

What the serviceman should know about "VIRGINIA" REFRIGERATION products

TO CHARGE A SYSTEM, USE REFRIGERANTS THAT ARE CONSISTENTLY PURE, CONSISTENTLY SURE

HOW TO SEAL CASES, INSPECTION PLATES, PIPE OPENINGS



When you seal out moist air, you prevent condensation, corrosion and insulation troubles. The outstanding seal, the one

preferred by service and maintenance engineers, is Permagum. Brown Permagum comes in 2½-lb. and 45-lb. slugs. Adheres to any dry surface. Never hardens; stays plastic from 0° to 350°F.; absolutely odorless. Gray white Permagum comes in rolls containing 80 ft. of ¼" cords. Seals around wiring; won't attack rubber. Never hardens; odorless; can be painted immediately.

VIRGINIA Refrigerants

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Refrigeration Problems

and their solution

by Paul Reed

For Service and Installation Engineers



Paul Reed

Electric Solenoid Valves (3)

A solenoid valve should be selected with a good deal of care. There is too much tendency to simply select a solenoid valve on the basis of the inlet and outlet line connections, and the voltage and frequency of the electric current. There are several factors that, if ignored, can cause a lot of trouble.

It is difficult to say what factor, other than refrigerant line size and current characteristics, is the most important, for the various factors are inter-related and affect one another; but certainly the orifice diameter is very important, for it affects the capacity of the valve and its performance characteristics.

PRESSURE-DROP ACROSS SOLENOID VALVES IN THE LIQUID LINE

Other things being equal, the size of the orifice determines the pressure-drop across the valve; the

larger the orifice, the smaller the pressure-drop, and vice versa. So we must decide how much pressure-drop we can stand, before selecting the orifice.

For a liquid line solenoid valve, we can normally allow a pressure-drop of 2 p.s.i., and select a solenoid valve, that, at the pressures that exist in the line, will give the required capacity and other performance with a pressure-drop of not more than 2 p.s.i.

When selecting a solenoid valve, if we allow a larger pressure-drop across the valve, say 3 p.s.i., the same orifice will pass more liquid or gas, and therefore the valve will have a greater capacity.

If we are unwilling to allow as much as 2 p.s.i. across the valve, the orifice must be larger in order to give the required capacity with the lower pressure-drop.

For purposes of determining the capacities of liquid line solenoid valves, it is common practice to assume a pressure-drop of 2 p.s.i. across the valve. If in the liquid line in which this valve is to be used, we allow a maximum total pressure-drop of 5 p.s.i., this leaves only 3 p.s.i. for

the remaining pressure-drop through the liquid line itself and its fittings, and through the drier, strainer, sight-glass, and other devices that are commonly found in liquid lines. Then, too, there is usually some pressure-drop due to "static head" in vertical liquid lines.

In most instances it will be found difficult to hold pressure-drop in the liquid line, other than across the solenoid valve, to 3 p.s.i. So a 2-lb. pressure-drop across a liquid line solenoid valve is not only the commonly accepted standard, but it is also just about the maximum that should be permitted.

Pressure-drop in the liquid line, without liquid sub-cooling, causes the liquid to boil and vaporize, thus creating "flash gas," which reduces the capacity of the expansion valve and affects its ability to maintain a constant and narrow enough superheat. Flash gas may cause actual physical damage to the expansion valve from wire-drawing and chattering of the internal parts.

PRESSURE-DROP ACROSS SOLENOID VALVES IN THE SUCTION LINE

How much pressure-drop can we allow across a solenoid valve in the suction line? That is, on what pressure-drop must we select the orifice size of suction line solenoids, bearing in mind that the size of the orifice and the pressure-drop on which it is based, determines the capacity of the solenoid valve?

Pressure-drop through the evaporator affects the operation of the expansion valve, causing the expansion valve to tend to "hunt" and to maintain a wider superheat and thus starve the evaporator. Pressure-drop through the evaporator and through the suction line, reduces the capacity and efficiency of the compressor. Therefore it is highly desirable to maintain a low-pressure drop from the inlet of the evaporator to the suction service valve on the compressor.

In practice, we must be prepared to accept some pressure-drop through the low pressure side of the system. The lower the evaporator temperature, and consequently the lower the corresponding evaporator pressure, the less the pressure-drop through the evaporator and suction line that we can accept.

For evaporator temperatures above 25°, the total low side pressure-drop should not exceed 2½ to perhaps in rare instances 3 p.s.i. For evaporator temperatures from 25° down to 0°, we can permit a total low side pressure-drop up to 1½ and in some instances 2 p.s.i.

For evaporator pressures below 0°, the total low side pressure-drop should be held to 1 p.s.i.; and for ultra-low temperatures, -40° and below, every effort must be made to eliminate low side pressure-drop in so far as possible.

Manufacturers of evaporators may consider the above limits too severe, but manufacturers of condensing units and expansion valves will probably agree with these maximum permissible pressure-drops.

The maximum permissible pressure-drop will have a direct bearing on the permissible pressure-drop across the solenoid valve to be used in that particular application. If the total permissible pressure-drop is to be 2 p.s.i., certainly no more than one-half of that, or 1 p.s.i., can be allowed to the solenoid valve or other device in the suction line.

In most instances, good practice

will require that the orifice for the suction line solenoid valve be based on a pressure-drop not to exceed ½ p.s.i., and that the solenoid valve be selected for capacity based on such an orifice.

MAXIMUM PRESSURE DIFFERENTIAL AGAINST WHICH THE SOLENOID VALVE MUST OPEN

Regardless of the capacity and pressure-drop of the solenoid valve while it is open, the valve must be able to open against the pressure on the high pressure side of the valve. More accurately, the valve must be able to open against the pressure difference on the two sides of the valve when the valve is in its closed position.

The solenoid valve must therefore be selected on the basis of where it is to be used in the system, and the maximum difference of pressure that may exist there, even under abnormal conditions.

The performance of the expansion valve will considerably affect the difference in pressures on the two sides of the solenoid valve, and consequently the power required to open the valve.

In the case of the liquid line solenoid valve, if the expansion valve tends to leak during the off cycle, the pressure on the downstream side of the solenoid valve may approach evaporator pressure. Assuming that the solenoid valve holds tightly during the off cycle, the difference in pressure across the valve against which it must open, may be very high; that is, it may have to open against the full difference between condensing and evaporator pressures.

If the expansion valve holds tightly, the pressure difference on the two sides of the solenoid valve may be almost negligible, so it will open with the minimum power required.

The method of control will be a decisive factor. If the system is "pumped down" at the end of the running cycle, the liquid line solenoid valve must be able to open against the full difference between condensing and evaporator pressures at the start of the next running cycle.

If the system is not on a "pump down" arrangement, but for some reason a solenoid is used in the liquid line, and if the compressor is started directly by evaporator or suction pressure, and if the expansion valve holds tightly throughout the off cycle, the solenoid valve can open

against almost negligible pressure difference on the two sides of the valve.

With the "pump down" cycle, or with any other arrangement that the solenoid valve must hold a high pressure on one side of the valve against a low pressure on the other side during the off cycle, the difference in pressure against which the solenoid must open at the start of the running cycle will be great, and will increase the difficulty in the solenoid valve opening. In such a case, the solenoid valve must be selected for its ability to open against a high differential in pressure on the two sides of the valve.

(To Be Continued)

CMP-4B Forms Out for 2nd Quarter '53, Due Dec. 1

WASHINGTON, D. C.—The National Production Authority has announced that CMP-4B applications for controlled materials for the second quarter of 1953, together with instruction sheets, were mailed recently to all listed producers of Class B products.

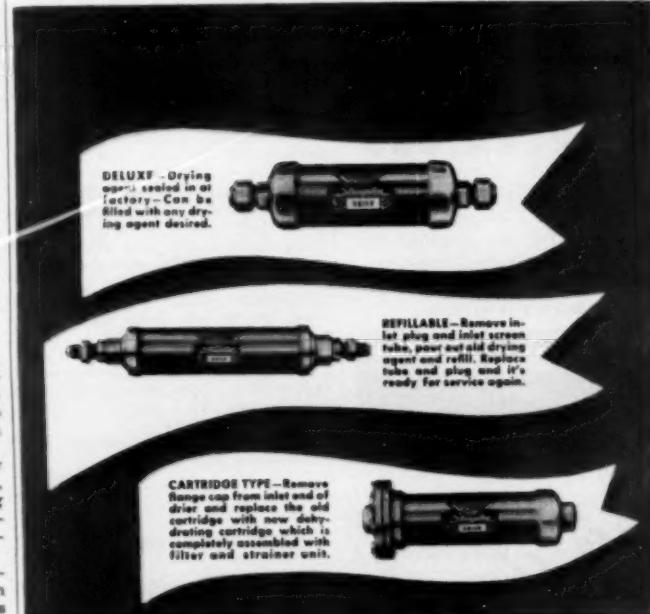
Final date for submitting the applications, NPA emphasized, is Dec. 1, 1952. The forms must be transmitted to NPA in Washington, D. C., or to the office which has been designated in specific written instructions.

Pointing out that very few changes have been made in the form, NPA also noted that the use of the application has been expanded to include producers who elected to obtain their controlled materials by the self-authorization or automatic allotment procedures in Directions 17 and 18 to CMP Regulation 1 respectively, either for the first or second quarter of 1953.

The official CMP Class B product list of May 1, 1952 as amended in August, 1952, will remain valid for the second quarter of 1953.

Byron, Valden Appointed By Conn. Light & Power

BERLIN, Conn.—The Connecticut Light & Power Co. has announced two appointments in its Berlin sales staff. Charles A. Byron, appliance manager, has been named residential sales manager, replacing the late J. J. Daly, and Donald S. Valden, commercial manager—northern—has been appointed sales promotion manager.



There are Mueller Brass Co. driers available for every type of service. They keep the refrigerant clean and dry, remove the minute particles of foreign matter and they are safe and reliable wherever they are installed. Each of the three types of Mueller Brass Co. driers shown here have these fine construction features:

- Exclusive cone screen filter-strainer filled with chemically purified wool provides a filter area 3½ times the area of a disc. This filter increases the working life of Mueller Brass Co. driers because it virtually eliminates clogging, insures free flow of the refrigerant at all times.
- Husky forged brass ends are threaded and soldered to the heavy copper shell to provide an extra factor of safety.
- Wide wrench flats make it possible to get tight connections that stay tight.
- A beautiful finish that makes an especially attractive installation in any system.
- Mueller Brass Co. driers are available in sizes from ¼" to 1½" outlets, and desiccant capacities from 3 cu. in. to 242 cu. in.

Write for catalog R-152 describing complete line of STREAMLINE Refrigeration products.

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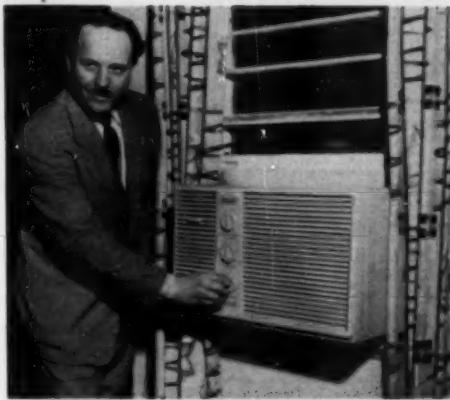
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R. E. DEAUX, Coolerator chief engineer, adjusts controls on one of the firm's space saver room air conditioners. Cabinet dimensions permit installation of a $\frac{1}{2}$ -hp. unit in a window as narrow as 24 in. Air intake is in front of cabinet so that draperies will not block vents.

Narrow Windows Are No Problem for Coolerator Space Saver Room Coolers

DULUTH, Minn. — Space saver cabinet dimensions that permit installation of the $\frac{1}{2}$ -hp., $\frac{1}{4}$ -hp., and $\frac{3}{8}$ -hp. model Coolerator room air conditioners in windows as narrow as 24 in. are an outstanding feature of the new line, according to R. E. Deaux, Coolerator chief engineer.

Deaux pointed out that the cabinets on these three models are only 23 $\frac{1}{2}$ in. wide. They are 14 $\frac{1}{2}$ in. high and 29 $\frac{1}{2}$ in. deep, extending into the room by 10 $\frac{1}{2}$ in.

All space saver models are equipped with permanent air filters

that can be removed for cleaning. They are also insulated, mounted on rubber snubbers, and carry a five-year warranty on the refrigeration unit.

The new mirror-tone finish in a neutral tint actually picks up colors of surrounding furnishings for decorative harmony, Deaux notes. The room air intake is on the front of the cabinet while the side panels are flush so that draperies cannot block vents.

Coolerator also has a 1-hp. room air conditioner in its new line.

Building Research Meeting To Study Design, Construction, Cooling for Hot Climates

WASHINGTON, D. C.—A correlation conference on housing and building in hot-humid and hot-dry climates will be conducted by the Building Research Advisory Board in the main auditorium of the National Academy of Sciences here on Tuesday and Wednesday, Nov. 18 and 19.

The conference, it was announced, will present a comprehensive review of building technology pertinent to these climates, discuss the work currently in progress, and identify those areas still in need of research.

It was called, according to a conference announcement, to approach the technological problems from the viewpoint that the expectancy of comfort among people living in these climates has far outrun the advances in this special type of construction.

One session—the final one to be held on Wednesday afternoon—will be devoted to the mechanical problems in hot climates. It will cover heating and cooling problems, roof spray techniques, evaporative cooling methods, and dehumidification in moist climates.

Other sessions will concern living in hot environments, architectural design for hot climates, and structures and materials in hot climates.

A \$10 registration fee is required for attendance at the sessions. This fee entitles the members of the conference to a copy of the proceedings which will be mailed on publication.

A bulletin on the conference had this to say:

"Building research has traditionally dealt with design and construction in temperate zones. This has been the natural outgrowth of population concentrations occurring first in these areas."

"Today, however, vast numbers of temperate zone people have spread to tropical and sub-tropical areas both here in the United States and in other countries. The expectancy of comfort among these people has far outrun the technological advances in this special type of construction."

"Hence it was felt that a symposium approaching the problem from this viewpoint—that is, one which did not concern itself primarily with low-

Problems in Materials and Structures by Bruce M. Holmes.

10:30-10:50 a.m.—Properties and Performance of Materials for Use In Hot Climates by George M. Rapp.

10:50-11:30 a.m.—Panel Discussion by Douglas E. Parsons, moderator; Dr. R. B. Taylor, Dudley T. Colton, L. J. Markwardt, Anatole Solow.

11:30-12:15 p.m.—Participation from floor.

12:15-1:45 p.m.—Luncheon recess.

3. Mechanical Problems In Hot Climates

1:45-2:05 p.m.—Heating and Cool-

ing Problems by Dean W. R. Woolrich.

2:05-2:25 p.m.—Roof Spray Techniques by Prof. G. E. Sutton.

2:25-2:45 p.m.—Evaporative Cooling Methods by Richard S. Farr.

2:45-3:05 p.m.—Dehumidification in Moist Climates by T. H. Urdahl.

3:05-3:45 p.m.—Panel Discussion by Tyler S. Rogers, moderator; Prof. Elmer Queer, John Everett, Jr., Prof. Wayne Long.

3:45-4:00 p.m.—Participation from floor.

4:45-5:00 p.m.—Summaries of Con-

ference by William H. Scheick, Dean W. R. Woolrich.

Papers by G. A. Atkinson of England and J. W. Drysdale of Australia will be presented by title at the conference and included in the published proceedings.

Topeka Firm Gets Charter

TOPEKA, Kans. — D & D Sheet Metal & Air Conditioning Co., Overland Park, Kans., has been granted a charter, with \$15,000 capitalization. Harold H. Dowdall is resident agent.

Just show him one...you've got a sale!



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DEW-MAKER action!

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Room Air Conditioner
cools and heats
with the Weath'r-Dial
at no extra cost.



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That Doesn't Both
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IS OBSOLETE!

only MITCHELL
does both with the
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MITCHELL MFG. CO., DEPT. AC-3

3535 Clybourn Avenue, Chicago 14, Illinois
Ask us details about the 1953 line of Mitchell Room Air Conditioners. Tell me how to get a Mitchell dealer franchise to sell the only room air conditioners that both cool and heat with the Weath'r-Dial.

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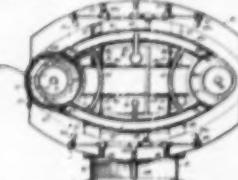
City _____

Zone _____ State _____

PATENTS

Week of September 16
(Continued)

1,610,074. ART OF CONGEALATION AND APPARATUS FOR USE IN CONNECTION THEREWITH. Crosby Field, Brooklyn, N. Y., assignor to Flakke Corp., Brooklyn, N. Y., a corporation of Delaware. Application Aug. 15, 1946, Serial No. 682,797. 18 Claims. (Cl. 68—106.)

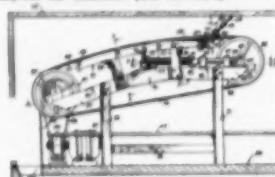


smaller than said convexly curved refrigerated surface, means for supplying material to be congealed to the portion of said belt maintained in said heat transferring relationship, and oscillating means for progressively relatively shifting the



deflector means with respect to said belt to progressively flex said belt to remove therefrom material congealed theron, said oscillating means including a drive member and a driven member, said drive member alternately acting upon said driven member first in one direction and then in another direction.

1,610,075. ART OF CONGEALATION AND APPARATUS FOR USE IN CONNECTION THEREWITH. Crosby Field, Brooklyn, N. Y., assignor to Flakke Corp., Brooklyn, N. Y., a corporation of Delaware. Application Aug. 15, 1946, Serial No. 682,799. 28 Claims. (Cl. 68—106.)



1. In refrigerating apparatus, in combination, an evaporator having a stationary refrigerated surface, said surface embodying a cylindrical convex curve corresponding to a surface defined by a straight line moving always parallel to fixed axis, a flexible belt, means holding said belt in heat transferring relationship with said curved surface and causing said belt to conform to the curvature of said curved surface, means for supplying to said belt while so cooled material to be refrigerated, and means for moving said belt along said curved surface, the path of movement of said belt also following and conforming to said surface defined by a moving straight line and means for flexing said belt to remove material congealed theron.

1,610,076. ART OF CONGEALATION AND APPARATUS FOR USE IN CONNECTION THEREWITH. Crosby Field, Brooklyn, N. Y., assignor to Flakke Corp., Brooklyn, N. Y., a corporation of Delaware. Application Aug. 15, 1946, Serial No. 682,800. 17 Claims. (Cl. 68—106.)

1. In congealing apparatus of the class described, in combination, a stationary refrigerated member having a refrigerated surface, having leading and following end portions and convexly curved along its length, an endless flexible belt encompassing said refrigerated surface, means for causing said belt to travel about said refrigerated member, and slide along said refrigerated surface, resilient movable means for maintaining said belt under tension in contact with said refrigerated surface, means for maintaining the successive portions of the belt approaching and reaching the leading edge portion of said refrigerated surface in the plane tangent to said edge portion, means for sup-

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smaller than said convexly curved refrigerated surface, means for supplying material to be congealed to the portion of said belt maintained in said heat transferring relationship, and oscillating means for progressively relatively shifting the



PROCUREMENT INFORMATION

The following is a list of proposed procurements issued by the various indicated U. S. Government procurement offices. This list is compiled and made available daily on a front page-up basis. Prospective bidders may obtain complete bid sets by a request to the purchasing office under which the purchase is listed in this Synopsis. Be sure to identify completely the bid invitation you wish by including in your request the item description, the invitation number or reference number and the opening date. This will save time in filling your request. For reasons of economy specifications are not included with the bid invitations unless the specification is a new one. First time bidders on a particular item should request a copy of applicable specifications and drawings at the time the request for a bid is made.

It is not necessary to refer solely to the issuing office for additional data on a bid invitation issued by any of the following U. S. Army Ordnance Offices: Ordnance Tank Automotive Center; Detroit Arsenal; Frankford Arsenal; Picatinny Arsenal; Spartan Arsenal; Rock Island Arsenal; Springfield Arsenal; Watertown Arsenal; and Watervliet Arsenal. Complete information on items purchased may be obtained from the Office of the Ordnance District Office nearest you. Its address is on file in your nearest Department of Commerce Field Office. Do not ask an Ordnance District Office for information on a purchase unless it is listed by one of the above-named offices. **Ordnance District Offices do not have information on any other purchases.**

Invitations for bids numbers will be followed by the letter "Q." Requests for proposals or quotations will be indicated in this column by the letter "Q," or if numbered, the number will be followed by the letter "Q."

DEPARTMENT OF DEFENSE

Description Quantity Invitation No. Opening Date

Supply Department, Puget Sound Naval Shipyard, Bremerton, Washington

Tubing seamless copper nickel alloy 70-30 specification MIL-T-16420A of 10/1/51 type A follows—12.750" OD x .375" thick

Tubing brass seamless grade I 200-450 psi working pressure spec. D 100-15B of 1/1-32 as follows:

4" OD x .140" thick $\frac{3}{4}$ 440 ft.

4.50" OD x .157" thick 330 ft.

Tubing seamless copper spec. MIL-T-873 of 12/1/49 as follows:

9.625" OD x .229" thick 34 ft.

type B 12.750" OD x .375" thick 300 ft.

type C

Tubing seamless copper hd drawn type K refrig spec. fed WW-T-790A of 12/23/43 as follows:

.250" OD x .049" thick x 440 ft.

20 ft. long

.275" OD x .049" thick x 40 ft.

25 ft. long

Bureau of Ships, Washington, D. C.

Cools chilled water cooling, various size, spec. MIL-C-2934A

Cools, gravity, various sizes, spec. MIL-C-2939A

Unit Cooler, chilled water, 674

335/53Q 28 Nov 52

Gas Heating Controls

By Service Information Division,
White-Rodgers Electric Co.

16—Operation of Low Voltage Thermostats

The White-Rodgers low voltage room thermostat is manufactured in two series—the 120 and 130. Both thermostats are identical in operation and have the same mechanism. The 120 design is a deluxe model, and as shown in the cutaway view in Fig. 13, a hinged cover conceals the temperature adjuster and the thermometer. The 130 model is an open-faced thermostat with the temperature adjuster and thermometer exposed to view.

CONSTRUCTION OF LOW VOLTAGE THERMOSTATS

The thermostat consists of three units: the case, the operating mechanism panel, and the wall bracket.

Fig. 13 indicates the sequence of assembly. When installing, the bracket is mounted with screws to the wall. The wiring is brought through the wall and is fastened to the bracket. The mechanism is then mounted to the bracket with three

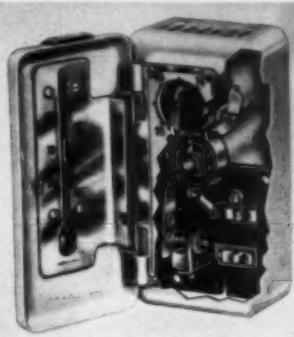


FIG. 13 is a cutaway of a deluxe White-Rodgers low voltage room thermostat. Opened cover normally conceals adjuster and thermometer.

machine screws that are part of the mechanism panel. The case is then slipped over the mechanism and is held in place with a screw located at the top of the control.

Fig. 14 shows the various parts

of the operating mechanism: the touch temperature adjuster for setting the control, calibration screw, bi-metal element, anticipator resistor, cycling screw, and three mounting screws.

The thermostat shown is of the anticipating type. The action of anticipating thermostats has been previously described.

Two screws hold the anticipator in place. Short pieces of wire extend from each end of the anticipator. If a new anticipator is to be installed, always leave enough wire from the

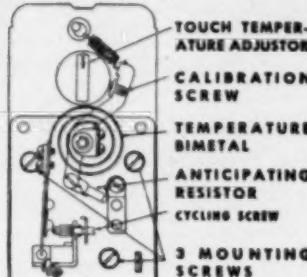


FIG. 14 shows parts of anticipating type thermostat.

anticipator ends so that the bi-metal element can move freely.

Important: The wrong anticipator will cause the thermostat to have either too wide or too narrow a differential. If the thermostat differential (any manufacturer's) is not right, check to determine if the anticipator is correct. Consult an anticipator chart.

The non-anticipating thermostat can be easily recognized since it does not have an anticipator.

CYCLING ADJUSTMENT

The cycling screw controls the differential of a thermostat but will not entirely overcome the action caused by an improper resistor-anticipator.

In changing the length of the "on" burner cycle, to shorten the cycle turn the cylinder screw in a clockwise direction; to lengthen the cycle turn the screw in a counter-clockwise direction.

The cycling screw dial has several marked and numbered divisions, each division represents approximately 1° on non-anticipating thermostats. With anticipating thermostats, too many variables are involved to give you a definite temperature change in degrees when the cycling screw is adjusted. Operating the burner through a normal "on" cycle is the best procedure of checking adjustment. The length of the burner "on" operation cycle should never be less than three minutes.

CALIBRATION

If the room temperature stays below where the thermostat is set, turn the calibration screw counter-clockwise. If the room temperature stays above the room temperature setting turn the calibration screw clockwise.

Approximately $\frac{1}{4}$ turn of the calibration screw will change the calibration 1° F.

Tyler, Kelly Named To New Positions In G-E Appliance Control Dept.

MORRISON, Ill.—Appointments of Richard D. Tyler as manager of marketing and Thomas J. Kelly as manager of engineering for the General Electric Co.'s Appliance Control Dept. here have been announced by John C. Helies, department manager.

Tyler will have over-all responsibility for the sale and promotion of controls related to major appliances, air conditioning equipment, domestic heating systems, and special devices. Kelly will be in charge of product development and design.

Tyler started with Telechron Inc., a G-E affiliate in Ashland, Mass.

He became sales manager of Telechron's clock division, and was later named assistant to the vice president in charge of sales of the Hotpoint Co.

He transferred to the G-E Fractional Horsepower Motor Dept. in January of this year as assistant to the marketing manager to handle special assignments. He remained there until his present post.

Kelly joined G-E 25 years ago at Schenectady, N. Y., under the electrical and test program.

Named to the post of design engineer for the Appliance Control Dept. in January, Kelly held that position until his recent appointment.

NPA Allows Producers More Leeway In Use of Metals for Repair Parts

WASHINGTON, D. C.—Revision of the consumer durable goods order, M-47B, to provide flexibility for the first time in the use of controlled materials for repair parts production, to drop the requirement for filing a form, to make quarterly changes in the order's listings and to bring it into conformity with other regulations was reported recently by the National Production Authority.

The most important change permits a producer of repair parts for products in the order's schedule to pool his controlled materials for all parts production, in order to increase his output of parts currently in greatest demand.

If, for instance, demand for home freezer parts is high while calls for vacuum cleaner and washing machine parts are lower, a manufacturer may take material from his cleaner and washer parts allotments and divert it to production of freezer parts.

Such diversion is permissible whether the controlled steel, copper, and aluminum are obtained by NPA allotment or by self-allotment, NPA pointed out.

In addition, a consumer goods manufacturer now may take materials obtained to make an end product and, instead, use it to fabricate a repair part. Thus, he may use stove production materials to make automatic dryer parts.

The reverse of this statement is not true, NPA emphasized. Materials allotted for repair parts output may

not be diverted into non-repair part production.

Purpose of this exclusion from M-47B's complete flexibility is to insure continued production of repair parts needed to keep existing equipment in operation. Allotments for repair parts production therefore are at a higher level than for end-product consumer goods output.

Materials obtained under directions 1 and 17 (governing small users of controlled materials) to CMP Reg. 1 may not be diverted into output of a new product for a six months period, the revision says. This is an extension to self-allotted materials of the limitation previously in effect, according to NPA officials.

After the expiration of the six months period, the manufacturer is then limited in the amount of self-allotted new product materials that he may divert into the making of an old product.

This divertible amount may not exceed the largest amount of the material used for making the new product in either of its first two quarters' production.

NPA's requirement for filing form CMP-60 is dropped. Submission of this form in previous quarters has shown such a consistent pattern of use of M-47B's flexibility that detailed information from industry on such usage no longer is necessary.

A new product code—"Dehumidifiers with complete refrigeration cycle," 3585395,—is added to the M-47B schedule.

CLASSIFIED ADVERTISING

RATES for "Positions Wanted" \$5.00 per insertion. Limit 50 words. 10¢ per word over 50.

RATES for all other classifications \$7.50 per insertion. Limit 50 words. 15¢ per word over 50.

ADVERTISEMENTS set in usual classified style. Box addresses count as five words, other addresses by actual word count. Please send payment with order.

POSITIONS WANTED

SALES AND business management executive open for position. Fifteen years' experience in commercial refrigeration, air conditioning and heating industry. Small and large corporation experience. Right age. Aggressive. National following of dealers, jobbers, distributors and manufacturers representatives. Write BOX 4117, Air Conditioning & Refrigeration News.

SALES SPECIALIST of heating and air conditioning equipment open for immediate position. Extensive experience specializing in sales-dealer-distributor organization establishment and sales volume development, merchandising and promotion of products and business management. Very aggressive. Ingenious. Correct age for making decisions and handling heavy assignments. National acquaintance of dealers, distributors, jobbers and sales representatives. Small and large corporation experience. Write BOX 4128, Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

APPLICATION ENGINEER. Excellent opportunity for man 35 to 45 years with experience in refrigeration application for food stores, restaurants, industrial installations. Desirable for applicant to have had experience in product design, production and in working with distributing outlets. Send late photograph and full particulars, education and experience. HUSSMANN REFRIGERATION, INC., 2401 N. Loeffingwell, St. Louis, Mo.

AIR CONDITIONING sales engineer as New York factory representative for manufacturer of compressors and condensing units—5 to 60 HP and home air conditioners. Must have application engineering and sales experience preferably with manufacturer. Opportunity with unlimited earnings. Write full details of past experience, earnings, etc. F. C. Schnacke, Pres., SCHNACKE, INC., Evansville, Indiana.

WANTED PRODUCTION engineer and designer for small plant. Location—central Iowa. Old firm. Experienced on coolers, cases and specialty fixtures. Must know combination wood and metal construction. Able to handle men and reduce production costs. Good deal for top man who can qualify. Write BOX 4129, Air Conditioning & Refrigeration News.

SALES MANAGER FOR a manufacturer of refrigeration fixtures, including cases and coolers. 67 years in business, in Iowa territory, can offer good proposition for producer, who can sell and train salesmen. Reply BOX 4130. Air Conditioning & Refrigeration News.

WATER COOLER manufacturer will open branch sales office in Chicago and cover mid-western wholesale distributors. Applications from qualified persons kept confidential. Give experience and starting salary expected first letter. BOX 4138, Air Conditioning & Refrigeration News.

PURCHASING AGENT. National manufacturer located in New York City, seeks top level man to assume full charge of purchasing department in the manufacturing of room air conditioning units. This position offers excellent salary and opportunity. State full details indicating experience and salary requirements. Reply to BOX 4151, Air Conditioning & Refrigeration News.

ENGINEER. MIDWEST manufacturer of ice cream display cabinets requests a refrigeration engineer with fabrication and production experience to assume layout and design responsibility and assist in production development. Give full details in reply regarding experience in design equipment, recent salaries, age and education. BOX 4152, Air Conditioning & Refrigeration News.

SALES REPRESENTATIVES wanted to handle national brand low temperature equipment. Complete line of frozen food cabinets, ice cream cabinets, upright and chest freezers, and soda fountains. Write complete details in first letter, as to territories covered. Must have contacts and experience. BOX 4154, Air Conditioning & Refrigeration News.

EQUIPMENT WANTED

WE PAY the highest prices for old 14 lb. refrigerant and cylinders. Large quantity required. Each cylinder complete with valve and cap. Write:—GOODWIN ASSOCIATES, Export Div., 2070-20th Lane, Brooklyn, N. Y.

SURPLUS V-BELTS, controls, valves, and other refrigeration parts. Submit inventory sheets and prices. SAM HAMMOND, 688 Washington Ave., Brooklyn 38, N. Y.

WANTED URGENTLY, machinery for manufacturing evaporator and condenser coil, $\frac{1}{2}$ tube. New or used. Outright purchase or rental. Reply BOX 4140, Air Conditioning & Refrigeration News.

WANTED REFRIGERATION and air conditioning equipment for all types of business. Old established distributor, Mid-Atlantic territory. Reply BOX 4148, Air Conditioning & Refrigeration News.

CASH WAITING we will purchase any quantities of relays-expansion valves-dehydrators-pressure or temperature controls—Also interested in any other refrigeration parts—must be brand new. Write immediately to BOX 4149, Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

REFRIGERATOR DOORS, 36" by 96" double batten auto close doors complete with removable track heads for a 72" track. $1\frac{1}{4}$ " corkboard insulation. 16 gauge metal clad. Brand new. \$95.00 each. Freight prepaid in U.S. Door height will be altered for anything up to 11 ft. 2 in. track for \$15.00 additional. BIMEL CO., Cincinnati, Ohio.

BRAND NEW 1952 frozen food merchandisers original crates. Model FDS18A, 18 cu. ft. thermopane doors; ultra modern superstructure; Kelvinator unit, 5-year warranty. Factory list \$735.50, your cost \$371.00. Order immediately; send for illustrations. MANN REFRIGERATION SUPPLY CO., 460 Lafayette Street, New York 3, N. Y.

WILL SELL at less than distributor's cost. 6 new Sweden freezers, model 195A8 in original crates. AL NICHOLSON, 216 Sebastopol Ave., Santa Rosa, California.

ATTENTION SERVICEMEN—Send for our new catalog—on controls, valves, relays, brass fittings, V-belts—hermetic and open type units. All new merchandise at great savings up to 50%; sold on money back guarantee. WALTER W. STAHL REFRIGERATION, 3033 Lincoln Ave., Chicago 13, Illinois.

GET IN NOW! GET IN RIGHT!
with Remington
ROOM AIR CONDITIONERS

Yes, room air conditioning is your golden opportunity—but you must get started right—sell aggressively—and enthusiastically—right now, before the peak of national acceptance is reached! There's no better advertisement—no surer way to bigger sales than through satisfied customers. And there's no better way to satisfy your room air conditioner customer than to give him exactly the right unit for the cooling he requires. With Remington there's no money wasted on units too small to do the job or too large to operate economically.

Only Remington enables you to cover the entire market! Only Remington gives you consoles as well as window units—in a wide selection of voltages, AC or DC—air cooled or water cooled models— $\frac{1}{2}$ h.p. to $1\frac{1}{2}$ h.p.—the industry's most complete line. All are unsurpassed in cooling capacity and efficiency!

But satisfied customers, alone, are not enough. Remington also wants satisfied dealers. That means dealers who are making a profit—who are partners in a good dealer-manufacturer relationship. To that end, Remington offers a really unique dealer franchise. It's something you can't afford to miss. Clip and mail the coupon for details.

Remington AIR CONDITIONING		SPECIALISTS IN AIR CONDITIONING
Tell me about the Remington Franchise.		
NAME _____	COMPANY _____	ADDRESS _____
_____	_____	_____
_____	_____	_____
_____	_____	_____

ASRE To Meet In New York Nov. 30..

(Concluded from Page 1, Column 3)
lems of cold storage insulations, respectively, while the regular Domestic Refrigerator Engineering Conference will consist of a panel discussion on Industrial Design with Walter Dorwin Teague as the moderator and discussion leader.

With the exception of the "general" session Tuesday morning, Dec. 2, which will offer three speakers' views as to the future of the industry, there'll be two technical meetings running simultaneously throughout the course of the meeting.

In addition, the Technical Research Exhibit inaugurated at the June meeting of the society will be continued. Among the some 15 exhibits which are supposed to be of a non-commercial nature will be the Hirsch tube, a thermal electrical analogue demonstrating heat transfer, and effects of atomic irradiation on food.

Entertainment features on the program include the reception Sunday evening, Nov. 30, a "mad-hatter" party Monday night, and the cocktail party and dinner-dance Tuesday evening, in addition to some special events for the ladies.

"Plain Talk About Atomic Energy" will be discussed at Monday's welcome luncheon by Philip W. Swain, chief editor of the magazine *Power*.

Various committee meetings will be held Sunday, the program for the balance of the meeting being as follows:

MONDAY, DEC. 1

9 a.m.—Registration, Grand Ballroom foyer, west end.

9:10 a.m.—Technical Research Exhibit, East Ballroom.

9:30 a.m.—General Assembly, West Ballroom. Opening remarks by the President Edward Simons. Welcome to New York City by T. R. Kearney, chairman, convention committee.

9:45 a.m.—First Technical Session, West Ballroom. President Edward Simons presiding.

Commercial and Industrial Defrosting Symposium—arranged by John Engalitch Jr., program committee.

Opening remarks by Clifford F. Holiske, past president, moderator.

"Review of Different Methods of Defrosting"—Milton W. Garland, chief refrigeration engineer, Frick Co., Waynesboro, Pa.

"Hot Gas Defrosting"—S. Charles Segal, sales manager, Kramer-Trenton Co., Trenton, N. J.

"Air Defrosting"—George A. M. Anderson, president, the King Co., Owatonna, Minn.

"Water Defrosting"—Daniel D. Wile, chief engineer, Refrigeration Engineering, Inc., Los Angeles.

"Dehumidifying Systems"—E. A. Windham, district manager, Surface Combustion Co., New York City.

9:45 a.m.—Room Air Conditioner Conference, East Ballroom. Paul B. Moore, chairman, presiding.

Product Planning.

"Basic Performance, Design Characteristics," M. A. Clark, senior development engineer, York Corp., York, Pa.

"Styling," C. A. Peterson, design consultant, Williamsport, Pa.

"Special features," W. L. McGrath, Carrier Corp., Syracuse, N. Y.

"Marketing," J. R. Hartman, chairman, commercial section, E. E. I. Cincinnati.

10:12 noon—Women's Get-Acquainted Coffee Social, Parlor A.

1 p.m.—Welcome Luncheon, Grand Ballroom. "Plain Talk About Atomic Energy," Philip W. Swain, chief editor of the magazine *Power*.

2:30 p.m.—Second Technical Session, West Ballroom. Joint Meeting with the American Society of Mechanical Engineers.

Presiding: ASRE Vice President, R. C. Jordan and ASME Chairman of Process Industrial Division, Elmer Knoedler.

"Turbo Expanders for Low Pressure Refrigeration"—A. M. G. Moody, the Trane Co., LaCrosse, Wis., and L. C. Claitor, Elliott Co., Inc., Jeannette, Pa.

"Combined Heat Transfer and Vapor Diffusion—The Wet Bulb Process by Electrical Analogy"—C. F. Kayan, head, Department Mechanical Engineering, Columbia University, New York City.

"Application of an Electric Analogue to Domestic Refrigerator Cabinets"—P. E. Davey and J. C. Spooner, General Electric Co., Erie, Pa.

"Effect of Different Pulldown Methods on Heat Flow Rates with Rapid Temperature Changes in En-

closed Spaces"—Neil E. Hopkins and John J. Seelius, York Corp., York, Pa.

2:30 p.m.—Insulation Conference, East Ballroom.

H. C. Brown, Chairman, presiding; Past President, J. F. Stone, moderator.

Installation Problems of Cold Storage Insulations.

Conference Panel will consist of:

A. B. Algren, professor mechanical engineering, University of Minnesota.

H. C. Brown, Jr., Armstrong Cork Co., Lancaster, Pa.

J. C. MacCormack, C. T. Hogan & Co., Inc., New York City.

E. H. Martin, Jr., Pittsburgh-Corning Corp., Pittsburgh.

E. R. Queer, Director, Department of Research School of Engineering, Pennsylvania State college.

W. Saul Smith, Johns-Manville Sales Corp., Cleveland.

3 p.m.—Tour for the women of United Nations Building.

4 p.m.—Committee meetings.

4:30-9 p.m.—Technical Research Exhibit, East Ballroom.

9 p.m.—Mad-Hatter Party, Grand Ballroom. Entertainment and dancing (informal; your admission, the price of the ticket plus a "mad hat").

TUESDAY, DEC. 2

9 a.m.—Registration, Grand Ballroom foyer, west end.

9:10 a.m.—Technical Research Exhibit, East Ballroom.

9:30 a.m.—General Session, West Ballroom. George K. Iwashita, chairman, Program Committee, presiding.

"The Shape of Things to Come"—W. J. Donald, managing director, National Electrical Manufacturers Association.

"Product Development Organization"—Walter M. Timmerman, general manager, Household Refrigerator Department, General Electric Co., Louisville, Ky.

"Consulting with Tomorrow"—Glenn Muffly, consultant and engineer, Springfield, Ohio.

Presentation of awards, Wolverine and Best Section Paper, by W. A. Kuenzli, chairman, Awards Committee.

12:2 p.m.—Technical Research Exhibit, East Ballroom.

2 p.m.—Third Technical Session, West Ballroom. Vice President A. J. Hess, presiding.

"Viscosity of Lubricating Oil with Freon-22 Mixtures"—J. L. Little, the Texas Co., Port Arthur, Texas.

"Humidity Control Pays Dividends"—W. G. Davidson, the B. F. Goodrich Co., Akron, Ohio.

"Safety Devices in Refrigeration"—R. T. Moore, Superior Valve and Fittings Co., Pittsburgh.

"Heating and Cooling a Residence with a 3-hp. Source Heat Pump"—W. F. Stoecker and R. R. Herrick, University of Illinois.

2 p.m.—Domestic Refrigerator Engineering Conference, East Ballroom, C. D. Harris, chairman, presiding.

Industrial Design Panel Discussion. Walter Dorwin Teague, industrial designer, New York City, moderator and discussion leader.

General discussion on history, importance of functional design, new materials and finishes, trends, use of color and allied subjects.

7 p.m.—Cocktail Party, East Ballroom.

8 p.m.—Dinner-Dance, Century Room, dress optional.

8:30-11 p.m.—Technical Research Exhibit, East Ballroom.

WEDNESDAY, DEC. 3

9 a.m.—Registration, Grand Ballroom foyer, west end.

8:30-10 a.m.—Technical Research Exhibit, East Ballroom.

9:30 a.m.—Fourth Technical Session, East Ballroom, Treasurer D. K. Tressler, presiding.

"Refrigerator Storage of Pecans"—J. G. Woodruff and E. K. Heaton, Georgia Experiment Station, Experiment, Ga.

"The Transport and Storage of Perishables in Canada"—C. P. Lentz and W. H. Cook, National Research Laboratories, Ottawa, Canada.

"Refrigeration Plays Important Role in Bulk Handling of Milk on the Farm"—A. C. Woodruff, Mojonier Bros. Co., Chicago.

"The Influence of Freezing and Storage Temperatures on Quality of Poultry"—Carl H. Koontz, Swift & Co., Research Laboratories, Chicago.

"Evaporative Cooling of Fruits and Vegetables"—Prof. D. H. Dewey, Department of Horticulture, Michigan

State college, East Lansing, Mich.

9:30 a.m.—Automobile Air Conditioning Symposium, Parlors B and C, J. R. Hornaday, vice chairman, Program Committee, presiding.

Discussion by representatives of automobile manufacturers on the problem of air conditioning automobiles.

J. W. Duhn, Chrysler Corp.

A. Kucher, Ford Motor Co.

O. G. Tinkey, Anchor-Temp Co.

S. Landell, Oldsmobile Div., General Motors Corp.

H. Schjolin, GMC Truck and Coach Div., General Motors Corp.

12:30 p.m.—Announcement of results of ballots on amendments to the Constitution and election of officers.

Induction of new ASRE officers for 1952-53.

Priority System Is Set Up For 'Wonderbar' Buyers

EVANSVILLE, Ind.—Servel, Inc. has set up a priority system for customers desiring to purchase the firm's new "Electric Wonderbar," according to Neal E. Schuman, sales manager of the Wonderbar Div.

"Despite steadily increasing production, demand continues to run ahead and we are taking this step to assure equitable distribution," Schuman said.

A purchaser will be asked to fill out a form at his dealer's and a copy of the dated application will be held by the dealer and distributor, in addition to the customer. The system is intended to put buyers on a first-come, first-served basis.

The Wonderbar, a portable small refrigerator designed as smart furniture, went on sale in September.

Bendix Appliances--

(Concluded from Page 1, Column 3)

For five years before that he was vice president of a Chicago appliance marketing agency.

Sayre said that Bendix would not market "just another kitchen appliance line." He promised that "engineering and marketing ingenuity" would mark the company's kitchen appliance program.

"Bendix does not plan on complete national distribution of its kitchen products immediately," Sayre declared. "Many of our distributors do not now handle kitchen appliances, having either dropped other lines waiting for ours or planning their own expansion into this field to coincide with ours."

He said the company's first obligation, when production is just getting under way, would be to supply those distributors adequately. Later, as production increases, he explained, Bendix can expand into additional markets.

He added: "We expect to be selling the new line early in 1953. And we're confident that with this new line and additional laundry equipment our annual sales will double."

The exact dates when the new line will be shown Bendix distributors and dealers have not been determined. Sayre pointed out that the availability of materials, chiefly steel, will govern this.

Durable Goods Mfrs. Get More 1st Quarter Steel

WASHINGTON, D. C.—In making its first supplementary allotment of steel for the first quarter of 1953, the National Production Authority granted consumers durable goods manufacturers 156,200 additional tons of carbon steel.

This bonus amounts to about 34% of their original allotment for the quarter bringing the total steel allocated to 50% of the third quarter, 1952, allotment.

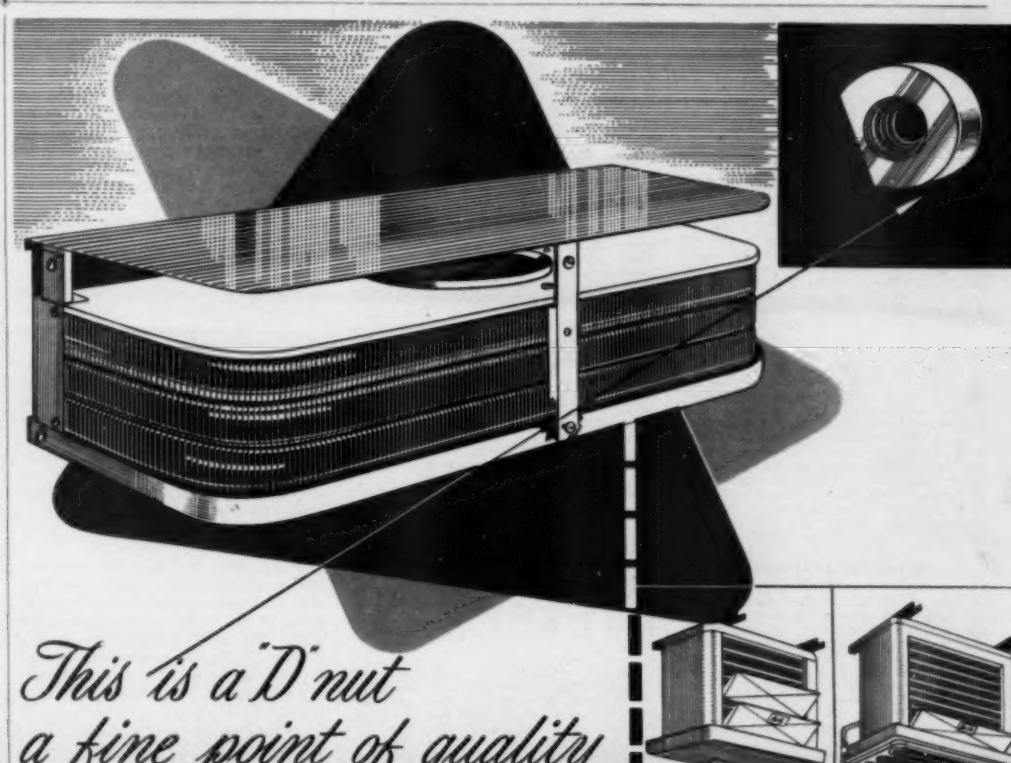
Defense Production Administration officials said that they will review the steel mill order books again before Dec. 10 and, if additional open capacity exists, will make another supplementary distribution of first-quarter steel.

Small original allotments for the first quarter were issued by NPA because it felt that there would be a sufficient volume of undelivered orders from fourth-quarter allotments delivered in the first quarter to maintain normal production schedules.

Industry representatives have protested that this will not be so. They say that all fourth-quarter allotments will be delivered in that quarter and that steel mills will actually have open capacity available in the first quarter.

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For "easy-to-get" product information . . . use coupon in the "Information Center" form.



FEATURES OF BUSH UNITS:

- Modern Styling and Attractive Finish
- Rigid Case Construction
- Full Drain Pan on All Units
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- Underwriters Laboratory Approval of All Units
- CJ and WJ Lines Feature Air DRAWN THROUGH the Coil Rather than Blown Out Across the Coil. This Eliminates Blowing Condensation from the Outer Edge of the Coil onto the Product or Box
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